Semi-annual Environmental Monitoring Report

Semi-annual Environmental Monitoring Report No. 06

Period: July to December 2022

January 2023

BAN: COVID-19 Emergency Assistance Project

Project Number: 54173-001

Prepared by the Directorate General of Health Services, Health Services Division of the Ministry of Health and Family Welfare for the Asian Development Bank

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EXECUTIVE SUMMARY

1. The COVID-19 Response Emergency Assistance Project supports the Government of Bangladesh in addressing the immediate and urgent needs for financial, logistical, and systemic support to deal with the COVID-19 outbreak. The project supports the procurement of equipment and supplies, the upgrading of health and testing facilities, and build system and community capacities for surveillance, prevention, and response to COVID-19. The project involves civil works supporting the upgrade/extension of existing facilities for the establishment of (i) screening and quarantine areas at points of entry; (ii) critical care and isolation units in existing healthcare facilities; (iii) microbiological diagnostics facilities in existing medical colleges and hospitals across the country.

2. The project is in implementation phase and as per the project structure, the project authority is preparing environmental safeguard reports for all the selected land ports, critical care & isolation units, microbiological diagnostics facilities, and meetings are being held both at webinar platform and at the respective offices maintaining safety precautions. The project is being implemented over a period of 3 years and the loan will close on 31 October 2023.

3. The project is rated Category B for environmental safeguards. Most civil and structural works consists of rehabilitation or minor extensions to buildings within existing premises. Therefore, potential direct, indirect, cumulative, and induced impacts of the project are anticipated to be site-specific and minor, few if any of them being irreversible in nature. The civil construction has already been started during the period. The monitoring activities for the project during the reporting period including the preparation of environmental safeguard reports, environmental audits, fill up checklist, preparation of ECoP, site visits etc.

4. The Project is following the requirements proposed in the EMP as well as the guidelines given in the EARF. All the contract packages ensured the EMP in its Contract document and the respective Contractor is fully aware of it. Additionally, the individual consultants of PIU are regularly visiting the project sites and ensuring the EMP implementation. During the semester period the Civil Engineer of PIU visited three construction sites and the Environmental Safeguards Specialist visited one subproject site during this reporting period. On the other hand, the PWD is also monitoring the project works as a partner implementing agency. The ADB environmental safeguard team arranged a comprehensive training for PWD officials along with the PIU personnel on the environmental safeguards and its management.

5. In this reporting period (July to December 2022), construction sites have been continued following respective EMP and Occupational Health Safety Guidelines. Guidelines on Pandemic COVID-19 has been provided to the Construction workers, site engineers and staffs of all the construction sites. The contractors are following the COVID-19 pandemic strategy, as well as a health and safety measures for each location. Training on the OHS has been provided during the commencement of work at RMCH and at the time of monitoring by the consultant also.

6. No review mission was conducted by the ADB during the reporting period. The last ADB Mid-Term Review Mission was conducted from 06 to 14 June 2022. The Mission reviewed the progress and familiarized the executing agency (EA) on ADB's guidelines on procurement, financial management and auditing, disbursement, social safeguards, gender action plan, environmental safeguards, anticorruption, public disclosure, and compliance requirements negotiated during the processing of the project.

7. This project has complied with the environmental provisions of the loan covenant and the

environmental safeguards requirement set by the ADB and the DoE. However, according to ADB this project is under Category B and therefore, the EMP is being prepared by the project for different contract packages. The civil works has been started during the monitoring period and those are being implemented by the Contractors under supervision by the DGHS. Though some limitations on the environmental monitoring have been identified during the reporting period but those are not critical and not hindering the project progress or making problem on environmental status. An action plan has also been proposed on the corrective measure and the PIU will try to ensure the issues by the next monitoring period.

I. INTRODUCTION

A. Project Background

1. COVID-19 is a new disease with similar symptoms as influenza but different in terms of severity and community transmission[1]. The World Health Organization (WHO) declared the COVID-19 as a Public Health Emergency of International Concern on 30 January 2020 under the International Health Regulations (IHR) 2005 and recognized it as a pandemic on 11 March 2020[2].

2. On 23 March 2020, the Government of Bangladesh requested ADB for a support for its preparedness and response to the COVID-19 outbreak. Accordingly, ADB approved a loan of $100 million from its ordinary capital concessional resource for Loan 3918-BAN(COL): COVID-19 Response Emergency Assistance Project (the project) on 30 April 2020. The loan agreement was signed on 13 May 2020 and became effective on 16 May 2020. The loan completion date is 31 October 2023. HSD of the Ministry of Health and Family Welfare (MOHFW) is the executing agency (EA); and DGHS under the Health Services Division (HSD), Central Medical Stores Depot (CMSD) under MOHFW, and Public Works Department (PWD) under the Ministry of Housing and Public Works are the implementing agencies (IAs) of the project.

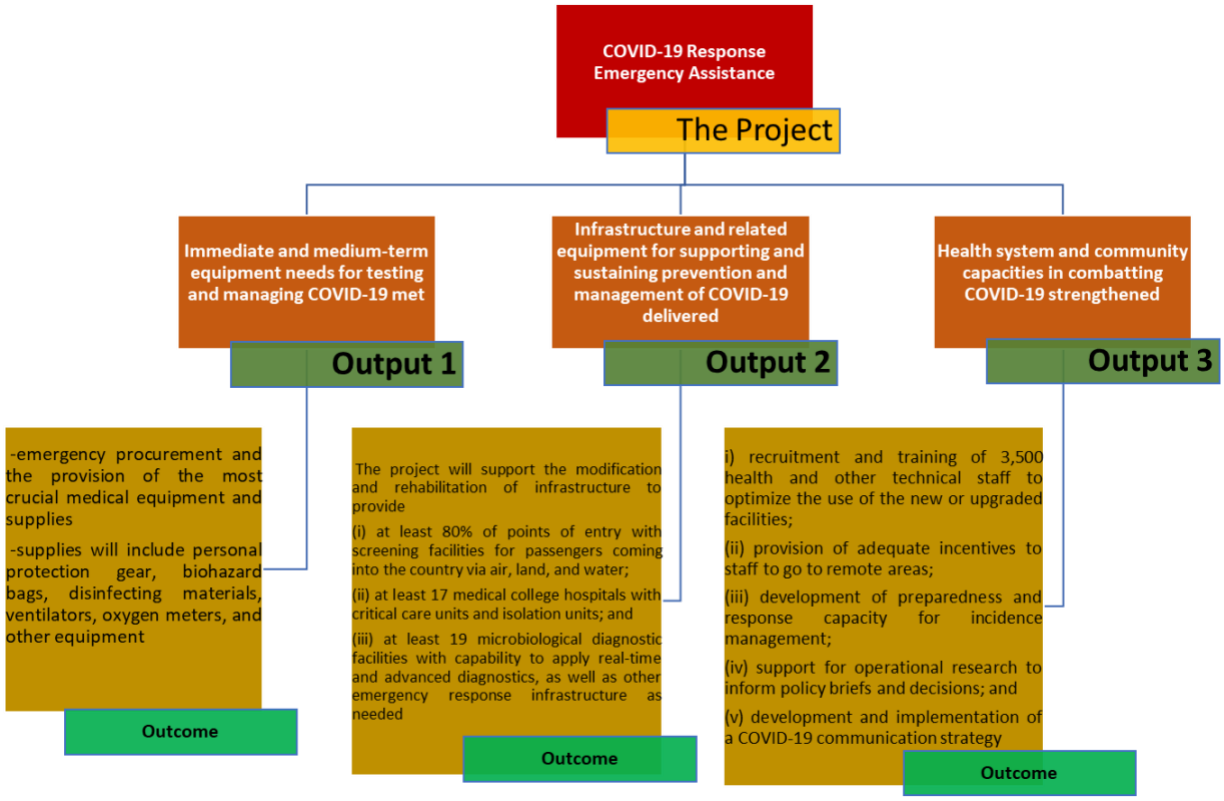
3. The COVID-19 Response Emergency Assistance Project (the project) is supporting the Government of Bangladesh in addressing the immediate and urgent needs for financial, logistical, and systemic support to deal with the COVID-19 outbreak. The project follows a request to Asian Development Bank (ADB) from the Ministry of Finance, and the project is an integral and vital part of the National Preparedness and Response Plan for containment, mitigation, and management of COVID-19. The project supports the procurement of equipment and supplies, the upgrading of health and testing facilities, and build system and community capacities for surveillance, prevention, and response to COVID-19.

B. Project Output

4. The project is aligned with the overall goal of the government's National Preparedness and Response Plan (NPRP). The project's outcome will be the improved Health and wellbeing of COVID-19 affected persons. The project has three outputs: (i) Output 1: Immediate and urgent needs are met in prevention and control of COVID-19; (ii) Output 2: Infrastructure and related equipment are delivered to support and sustain prevention and management of COVID-19; and (iii) Output 3: Health system and community capacities in combatting COVID-19 are strengthened. In particular, the project involves civil works supporting the upgrade/extension of existing facilities for the establishment of (i) screening and quarantine areas at points of entry; (ii) critical care and isolation units in existing healthcare facilities; (iii) microbiological diagnostics facilities in existing medical colleges and hospitals across the country.

[1] WHO Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. https://www.who.int/health-topics/coronavirus#tab=tab_1.

[2] WHO. International Health Regulations (2005). 3rd Ed. https://www.who.int/ihr/publications/9789241580496/en.



C. Report Purpose and Rationale

5. As part of the borrower's commitment, Semi-Annual Environmental Monitoring reports (EMR) are to be prepared to report on the Contractors' progress with implementing the requirements of the Environmental Management Plan (EMP), as well as the borrower's responses to non-compliance issues.

6. The purpose of this 6th EMR is to document the environmental management activities and compliance with the approved EMP of this Project and provides details of project activities during the period from July to December 2022. This report is prepared in accordance with the environmental monitoring program as part of the EMP. As the 6th EMR, it will cover both the construction phase as the compliance with the EMP for the design, bidding, and construction and preparation of bidding documents for the remaining packages. In line with targets aimed at reducing the negative environmental impacts of the Project and in accordance with all the relevant specifications and standards of the Government of Bangladesh (GOB), as well as the policies of the Asian Development Bank (ADB), this report will emphasize: (i) progress made in implementing the EMP, (ii) implementation of mitigation measures, (iii) environmental compliance and (iv) problems that have occurred, and corrective actions taken.

D. Implementation Schedule

7. The project is in implementation stage and several subprojects are under construction and remaining packages are in design stage. Therefore, the project authority is preparing environmental safeguard reports for all the selected land ports, critical care & isolation units, microbiological diagnostics facilities, and meetings are being held both at webinar platform and at the respective offices maintaining safety precautions. Also, the project authority is regularly collecting primary and secondary information regarding the selected place, design development, etc.

8. The project is being implemented over a period of 3 years and the loan will close on 31 October 2023. The project is estimated to cost $113.38 million, inclusive of taxes and duties, physical and price contingencies, interest, and other charges during implementation.

E. Project Progress Status

a. Procurement of Civil Works

9. The project has made necessary arrangements for getting PWD as one of the Implementing Agencies responsible for the procurement and implementation of civil works. All the civil works activities were categorized in three types: (i) establishment of 50-bed isolation centres and 10-bed critical care units in 17 MCHs; (ii) establishment of screening centres/medical centres in selected land ports in 26 land ports; and (iii) embellishment of 19 microbiology labs with PCR facilities. However, the selected sites under the Project till date has been given on a map in Figure I.1. The status of the three categories of civil works is as follows:

10. **Establishment of Isolation Centres (IC) and Critical Care Units (CCU) in MCHs**. At the appraisal, the establishment of Isolation Centres (ICs) and Critical Care Units (CCUs)/Intensive Care Units (ICUs) were planned at the 17 Medical College Hospitals (MCHs) for better treatment of the COVID-19 cases. Initially, 8 MCHs were selected for the of construction/rehabilitation, electro-mechanical and installation of the medical gas system works (15 lots of procurement) in 2021 since they have space readily available. 15 contracts out of 15 lots already have been awarded and contract signing for all the lots are completed. Tender has already invited for Chattogram MCH and PWD is finalizing the design for the and Gopalganj MCH. For the remaining 5 MCHs in Tangail, Rangpur, Dinajpur, Bogura, and Barisal vertical extension is proposed due to space limitations. The EA informed the ADB that it will be able to establish ICs and CCUs in 15 MCHs instead of 17 MCHs.

11. **Establishment of Screening Centres/Medical Centres in Land Ports**. It was planned to establish medical centres in 7 land ports which are operated and managed by BLPA in phase 1. The process of making the land/site available, preparing the architectural plan etc. have already initiated and progressed accordingly. It was informed that inter-ministerial committee meeting was held in October 2021 for selecting sites/ endorsing design of the centres while it was decided to visit the site area by the concerned GOB officials before selecting/ finalizing the sites. Location for Medical Center at Tamabil Land Port has already been selected and tender documents has prepared accordingly. PWD is now evaluating the bids for selection of Contractor. Additionally, tender document for medical center at Akhaura Land Port is under preparation by the PWD.

12. **Reconstruction/upgradation of existing Microbiology Lab facilities**. It was agreed in principle that at least 20 PCR labs will be established, especially in those districts where no facilities were available. Total 14 laboratory facilities have already been established by utilizing GOB fund due to small civil renovation works and the EA has plan to utilize ADB allocation in only three places, i.e., DNCC Covid-19 Hospital; National Institute of Preventive and Social Medicine (NIPSOM) and Sheik Russel Gastroliver Institute & Hospital in Dhaka. Procurement for DNCC is ongoing with evaluation and the tender for NIPSOM has already invited.

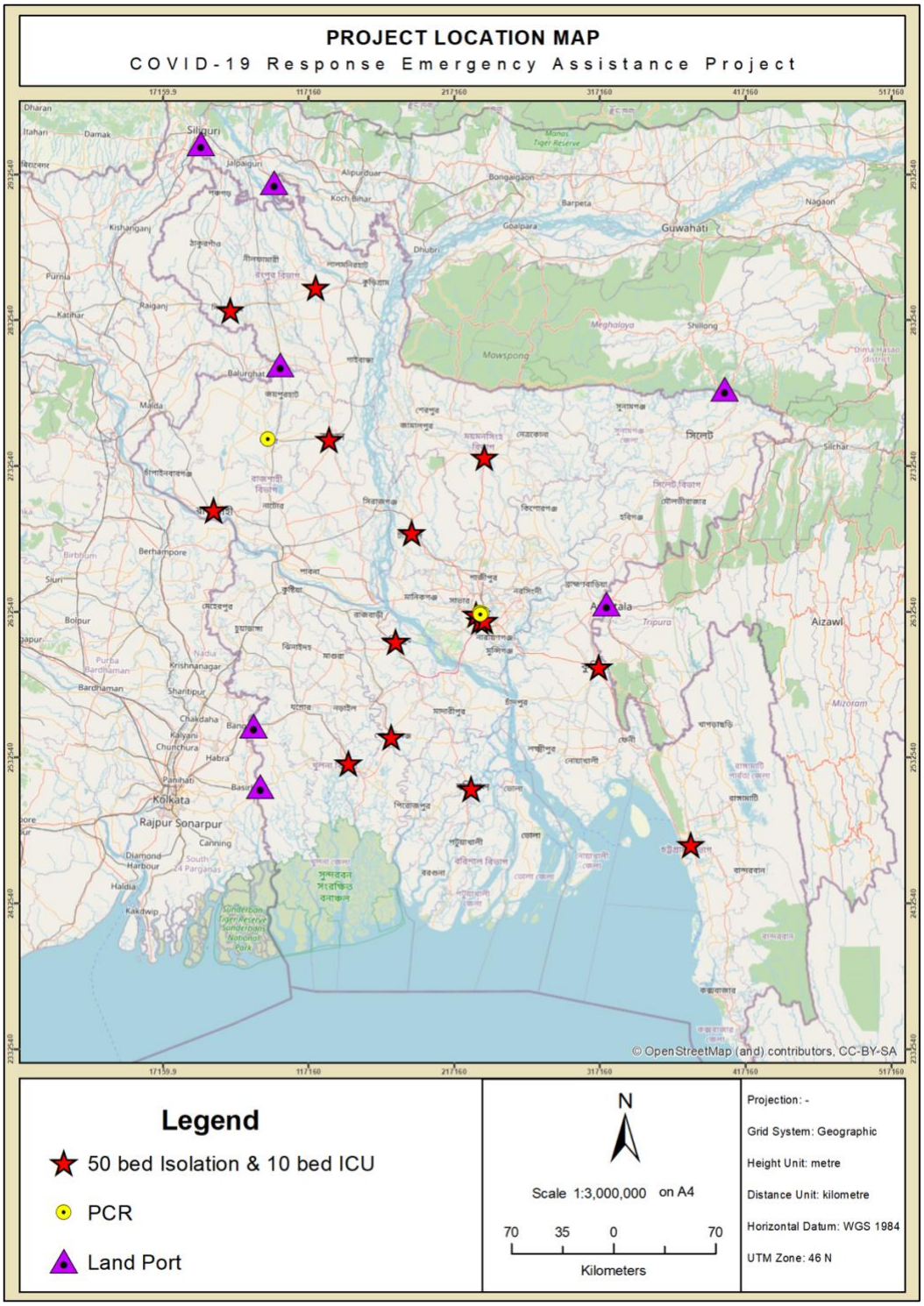


Figure I.1: Project Location Map

b. Physical Progress

13. The activities were carried out during the monitoring period enabling the detailed design of fourteen contract packages incorporating the various components of the Project to be completed in 2023. Based on the completed designs, tender documents were prepared and issued to contractors and the status of the Procurement process and construction work up to the end of December 2022 is summarized in Table I.1.

Table I.1. Status of Physical Progress of Contract Packages under The Project

SL	Description	Estimated Cost	IFT Date	Opening Date	NOA Date	Contract Sign Date	Completion Date	Contract Price	Physical Progress	EMP Prepared	EMP Approved	EMP Disclosed	Remark
	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU												
1	**Dhaka Medical College Hospital**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	339.21	06/12/21	03/01/22	01/03/22	20/03/22	19/09/22	304.82	80%	YES	YES	YES	Tiles work is going on Isolation: False ceiling work is going on Internal Electrification work is going on
b	Installation of Medical Gas System	50.00	15/09/21	18/10/21	25/11/21	06/12/21	10/05/22	43.89		YES	YES	YES	Work will start after completing civil work.
2	**Mugda 500 bed General Hospital**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	20.00	09/09/21	30/09/21	23/11/21	25/11/21	25/01/22	19.97	100%	YES	YES	YES	Work completed.
b	Installation of Medical Gas System	224.26	28/09/21	27/10/21	28/12/21	24/01/22	23/07/22	213.09	80%	YES	YES	YES	Shifting hostel student is going on, gas connection will be given soon
3	**Rajshahi Medical College Hospital, Rajshahi**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	1096.09	08/08/21	07/09/21	12/10/21	31/10/21	31/07/22	1095.42	75%	YES	YES	YES	Tiles work is going on.
b	Installation of Medical Gas System	70.00	08/12/21	07/09/21	14/10/21	31/10/21	31/07/22	59.94		YES	YES	YES	
4	**Shaheed Suhrawardy Medical College Hospital, Dhaka**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	130.26	05/09/21	29/09/21	19/10/21	24/10/21	24/04/22	129.87	100%	YES	YES	YES	Work completed.
b	Installation of Medical Gas System	258.98	12/09/21	11/10/21	13/12/21	23/12/21	23/06/22	249.54		YES	YES	YES	Work completed.
5	**Mymensingh Medical College Hospital, Mymensingh**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	74.9	25/08/21	20/09/21	14/11/21	16/11/21	16/02/22	62.89	100%	YES	YES	YES	Work completed.
b	Installation of Medical Gas System	61.98	25/08/21	20/09/21	14/11/21	16/11/21	16/02/22	53.28		YES	YES	YES	Work completed.
6	**Faridpur Medical College Hospital, Faridpur**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	57.02	16/08/21	8/9/2021	19/10/21	19/10/21	30/12/21	51.23	100%	YES	YES	YES	Work completed.
7	**Cumilla Medical College Hospital, Cumilla**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	88.35	15/06/21	13/07/21	20/09/21	21/09/21	21/12/21	84.75	100%	YES	YES	YES	Work completed.
b	Installation of Medical Gas System	68.63	15/06/21	13/07/21	25/10/21	26/10/21	26/01/22	61.76		YES	YES	YES	
8	**Sheikh Hasina Medical College Hospital, Tangail**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	57.98							0%				Work will be done later.
b	Installation of Medical Gas System	60											

SL	Description	Estimated Cost	IFT Date	Opening Date	NOA Date	Contract Sign Date	Completion Date	Contract Price	Physical Progress	EMP Prepared	EMP Approved	EMP Disclosed	Remark
9	**Khulna Medical College, Khulna.**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	350.00	06/01/22	07/02/22	05/10/22	22/5/22	30/08/22	273.91	35%	YES	YES	NO	Wall & floor tiles work is going on
b	Installation of Medical Gas System	50.00	06/01/22	07/02/22	23/06/22	21/07/22		41.00		YES	YES	NO	
10	**Chittagong Medical College Hospital, Chittagong**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	350	23/10/22	14/11/22			25/6/23		0%	YES	YES	NO	Tender invited
b	Installation of Medical Gas System	50								YES	YES	YES	Bidding document correction is going on
11	**Gopalganj Medical College Hospital, Gopalganj.**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	350							0%				Director selected a site, but HED is working in that building. After H/O PWD can get the site. Estimate and Floor Plan preparation is under process
b	Installation of Medical Gas System	50											
12	**M. Abdur Rahim Medical College Hospital, Dinajpur.**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	879.47											Architectural drawing sent to field
b	Installation of Medical Gas System	60.00											
13	**Bogura Medical College Hospital, Bogura.**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	837.15											Architectural drawing. preparation is going on
b	Installation of Medical Gas System	100.00											
14	**Barisal Medical College Hospital, Barisal.**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	1083.46											Architectural drawing. preparation is going on
b	Installation of Medical Gas System	100.00											
15	**Rangpur Medical College Hospital, Rangpur.**												
a	50 bed Isolation Unit & 10 bed ICU/CCU	806.76											Site is selected. Estimate preparation is going on
b	Installation of Medical Gas System	150.00											Site is selected.
	Construction of PCR lab at MCH/Institute												
1	DNCC dedicated COVID -19 Hospital, Dhaka.	95	4/10/22	5/8/22				81.29	0%	YES	YES	NO	Contract Signed
2	National Institute of Preventive & Social Medicine, Dhaka	95	7/3/22	16/8/22					0%	YES	YES	NO	Tender evaluation is going on
3	Sheikh Russel Gastroliver Institute & Hospital, Dhaka.	95							0%				To be dropped

SL	Description	Estimated Cost	IFT Date	Opening Date	NOA Date	Contract Sign Date	Completion Date	Contract Price	Physical Progress	EMP Prepared	EMP Approved	EMP Disclosed	Remark
4	Naogaon Medical College, Naogaon.	95							0%				To be dropped
	Establishment of Medical Centers in Land-Ports												
1	Benapole, Jashore.	720							0%				Revised Architectural plan sent to PD for approval on 19-4-22
2	Burimari, Lalmonirhat	600							0%				Architectural plan and site selection under process.
3	Akhaura, Brahmanbaria.	600							0%				IFT will be published soon
4	Bhomra, Satkhira.	600							0%				Revise architectural drawing (only building) plan sent to PD for approval on 20/01/2022.
5	Tamabil, Sylhet.	600							0%	YES	YES	NO	IFT Published
6	Hili, Dinajpur	600							0%				Digital survey report sent. Architectural drawing approval under process.
7	Banglabandha, Panchagarh	600							0%				Architectural plan and site selection under process.

II. COMPLIANCE TO NATIONAL REGULATIONS

14. The project is complying with the environmental laws, standards, rules, and requirements of the government. These requirements set forth restrictions on project activities to avoid, minimize or mitigate the likely impact on the environment. MOHFW and DGHS is responsible for ensuring that all activities under the project comply with these requirements from design, construction, and in the operation and maintenance of the facilities.

15. The project is not involved construction of new multi-storied building. Upgrading and construction of additional structures is being designed within the existing physical footprints of the health facilities, medical colleges, IEDCR and the BITID. As such, no environmental clearance is required.

Regulation	Brief Description	Implications to the Project	Responsible Agency	Compliance Status
Infectious Diseases (Prevention, Control and Elimination) Act 2018	• This Act provides to "keep or quarantine any suspected person infected with an infectious disease, at a specific hospital, temporary hospital, establishment or home". This law empowers government in notification, isolation, quarantine, sample collection and testing in emerging diseases. • Under section 26, if false or incorrect information is being spread or given by any person who is aware of the correct information, he or she can potentially be found guilty.	Design of project components is complying with the provisions under the Act	MOHFW	Being Complied
Medical Waste Management Rules 2008	• Any solid, liquid, gaseous, and radioactive waste material generated during the diagnosis, treatment, preventive and curative measure, or in research activities pertaining to disease diagnosis when it is released, discharged, or disposed causing detrimental effect on human health and environment is considered medical waste • Main existing complete code to be followed by all concerned agencies for proper disposal of medical waste to safeguard the environment	Management of medical wastes generated from the considered health facilities, medical colleges, IEDCR, and BITID under this project is complying with these rules.	Department of Environment	Being Complied
Public Health (Emergency Provisions) Ordinance, 1994	Calls for special provisions in case of emergency to prevent the spread of human disease, safeguarding public health and providing them adequate medical service and other services essential to the health of respective community and workers in particular during the construction related work	Design, construction, and operation and maintenance of project components is complying with the special provisions of this Ordinance	Local Government Division	Being Complied
National Disaster Management Act 2012	This Act provides for activities on disaster management coordinated, object oriented and strengthened; and to formulate rules that will build up infrastructures of effective disaster management in fighting all types of disaster.	Setting-up emergency response procedures	Ministry of Disaster and Relief	Being Complied

Regulation	Brief Description	Implications to the Project	Responsible Agency	Compliance Status
Environment Court Act 2000 (amended in 2002 and 2010)	This Act ensures the resolution of disputes on environmental and social damages resulting from any development activities. This also allows for the completion of environment-related legal proceedings effectively.	Mechanism for affected persons to file grievances/complaints related to environment safeguard	MOEFCC	Not Complied
Vehicle Act 1927, the Motor Vehicles Ordinance 1983, and Bengal Motor Vehicle Rules 1940	These regulations control vehicular emissions and noise including road safety	Vehicles used during upgrading works in the facilities is complying with relevant requirements of the Act	Bangladesh Road and Transport Authority	Being Complied
National Environmental Policy, 1992	Policy that ensures development components do not pollute the environment or degrade resources and sets out the basic framework for environmental action together with a set of broad sectoral action guidelines.	• Regulation on vehicles emitting smoke which is harmful to the environment • Follow standards on quality of air, water, noise and soil • Sets limits for discharging waste	MOEFCC	Being Complied
Bangladesh Water Act 2013	Makes provisions for integrated development, management, abstraction, distribution, use, protection, and conservation of water resources. Ensures water sources are free from any type of pollution.	Construction works is not causing water pollution	Ministry of Water Resources	Being Complied
National Safe Drinking Water Supply and Sanitation Policy of 1998	Ensures access to safe water and sanitation services at an affordable cost	Construction and operation of project components is adhering to the relevant provisions	Ministry of Local Government, Rural Development, and Cooperatives	Being Complied
Bangladesh Labour Act 2006 (amended 2013)	These regulations aim to protect the interests and rights of the workers, in provision of comfortable working environment, reasonable working conditions, and to ensure workers' safety. This also provides for the prohibition of employment of children and adolescent.	• Compliance to provisions on employment standards, occupational health and safety, welfare and social protection, labor relations and social dialogue, and enforcement. • Prohibition of employment of children and adolescents (below 14 years old)	Ministry of Labour and Employment	Being Complied
Bangladesh Labour Rules 2015	Provides for the rules on registration of laborers, misconduct rules, income and benefits, health and fire safety, factory plan	Contractors are implementing occupational health and safety measures and liable for compensation for work-related injuries.	Department of Labor	Being Complied

Regulation	Brief Description	Implications to the Project	Responsible Agency	Compliance Status
Bangladesh National Building Code 2006	Sets minimum standards for design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings to safeguard, within achievable limits, life, limb, health, property and public welfare	Design of upgrading the existing health facilities, medical colleges, IEDCR, and BITID are complying with relevant requirements and specifications	Ministry of Housing and Public Works (MHPW)	Being Complied
Bangladesh Building Construction Rules 2008	• These rules seek to control development plot-by-plot and case-by-case. It controls development by imposing conditions on set-backs, site coverage, construction of garages, access to plot, provision of lift, land use of that particular plot and height of building. • Regulates technical details of building construction and to maintain standards of building construction	Construction works are complying with relevant provisions, standards, and specifications has been prepared to ensure structural integrity of existing facilities with upgrading	MHPW and its relevant agencies	Being Complied
Bangladesh Factory Act 2006	The Act requires every workplace including small- or large-scale construction where women are employed to have an arrangement of childcare services. Based on this Act and Labor Laws - medical facilities, first aid and accident and emergency arrangements are to be provided by the authority to the workers at workplaces.	Contractors are providing first aid and emergency arrangements for the workers during construction works and costs are given in EMP as well as bid document	Ministry of Labor	Being Complied
Local Government (*Pourashava*) Act 2009 and the Local Government (City Corporation) Act 2009	• Provides guidance for integrated community and workers health and hygiene at the construction, and operation and maintenance stages of the project • *Pourashava* wide responsibilities in town planning and development, public health and sanitation, water supply and sewage disposal, maintenance of public infrastructure and amenities.	Coordinate with *Pourashava* committees on disaster management measures, water and sanitation, and waste management.	Local Government Division	Yet not required but will be applicable if necessary

III. COMPLIANCE TO ENVIRONMENTAL REQUIREMENTS FROM THE ADB LOAN AGREEMENT

16. The Safeguard Policy Statement (SPS) 2009 of ADB sets out the requirements for environmental safeguard that applies to all ADB-financed projects and grants SPS 2009 comprises three key safeguard areas: environment, involuntary resettlement, and indigenous peoples; and aims to avoid adverse project impacts to both the environment and the affected people; minimize, mitigate and/or compensate for adverse project impacts; and help Borrowers to strengthen their safeguard systems and to develop their capacity in managing the environmental and social risks.

17. No review mission was conducted during this reporting period by the ADB. The ADB conducted the last Mid-Term Review Mission[3] of the aforesaid project during 6-14 June 2022 but due to changes in the HSD Secretary position, and other priority of ERD, ADB Wing, it was extended until 29 June 2022. The Mission reviewed: (i) the overall project implementation progress; (ii) progress and achievements of the Design and Monitoring Framework (DMF)/and assessed delivery of the project outputs and outcome; (iii) updated the project DMF targets and indicators and baseline projections as necessary; (iv) assessed the project scopes and proposed to revise the scope and implementation arrangement, as needed; (v) reviewed and updated gender action plan (GAP), social and environmental requirements where necessary; (vi) reviewed quarterly progress report including financial reports; (vii) identified issues and challenges in project implementation. (viii) assessed compliance with the loan covenants, social & environmental safeguards, GAP including compliance requirements negotiated during the processing of the project. The Mission had virtual/physical meetings with the officials of Health Services Division (HSD), Directorate General of Health Services (DGHS), Central Medical Stores Depot (CMSD), Public Works Department (PWD), Department of Architecture (DOA), Bangladesh Land Port Authority (BLPA), Economic Relations Division (ERD), Implementation Monitoring Evaluation Division (IMED), and Planning Commission (PC) to review, discuss, and agree on the expeditious implementation of this emergency assistance project. The Mission's findings were discussed at the pre-wrap-up and wrap-up meetings held on 27 and 29 June 2022, respectively. Wrap-up meeting was held under the chairmanship of the Secretary, HSD while pre-wrap-up meeting was chaired by the Additional Secretary/ADB Wing Chief of ERD. The Aide-Memoire reflects the discussions and agreements reached between the government and ADB in the wrap-up meeting which is subject to the approval of the respective managements.

18. Overall, the COVID-19 response emergency assistance project has complied with the environmental provisions of the loan covenant. The EARF was prepared during processing as guidance for the screening and assessment of subprojects. Based on SPS 2009, the project is rated category B for environmental safeguards as the potential impacts are considered to be site-specific, temporary, with few if any of them irreversible, and in most cases mitigation measures can be designed readily. An Environmental Assessment and Review Framework (EARF) was prepared to address these impacts and risks. Impacts will be mitigated through the development of guidelines for waste management, health and safety risk assessment and management plans, Environmental

[3] Team comprising S.M. Ebadur Rahman, Senior Social Sector Officer (Education and Health)/Mission Leader, Bangladesh Resident Mission (BRM); Md. Monjurul Ahmed, Senior Financial Management Officer, BRM; Mohammed Zulyaminayn, Senior Procurement Officer, BRM; Farhat Jahan Chowdhury, Senior Project Officer (Environment); Nasheeba Selim, Senior Social Development Officer (Gender), BRM; Md. Humayun Kabir, Procurement Officer, BRM; Kazi Akhmila, Safeguards Officer (Resettlement), BRM; Ruby Sarcar, Project Analyst, BRM, Minhajur Rahman Khan, Associate Project Analyst, BRM and Bunty Roy, Operations Assistant, BRM. Besides, TA consultants are also participated in the Mission. Jiangbo Ning, Deputy Country Director, BRM and Tika Limbu, Principal Portfolio Management Specialist, BRM attended the wrap-up meeting.

Code of Practices, provision of PPE, and trainings with mitigation measures included in Environmental Management Plans, implementation of which shall be closely supervised and monitored. Activities related to building Isolation Unit with at least 50 beds or more within the hospital premise or activities outside the existing facilities or for which impacts are unknown are subject to detailed assessment. Impacts of those activities will be assessed through a well-developed EMP.

19. During the reporting period (July to December 2022), PIU Individual Consultants arranged physical and virtual tour for site visit to different subprojects locations for the successful planning of infrastructures development and implementation of the EMP as per the contract document. The picture of the visit is given in Annex II of the report.

20. Covenants written into the loan agreement that are related to environmental safeguards are as listed in Table III.1. These refer to actions that need to be taken up during the implementation of sub-project construction activities. Status of compliance with the environmental provisions of the Loan Covenant are shown in Tables III.1 of the report.

Table III.1 Status of Compliance with the Environmental Provisions of the Loan Covenant 54173-001

Sl. No.	Covenant	Status of Compliance	Action Required
Environment:			
1.	The Borrower shall ensure, or cause the Project Executing Agency to ensure that the preparation, design, construction, implementation, operation and decommissioning of the project, each Subproject and all project facilities comply with (a) all applicable laws, rules and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied	IEE and EMP is prepared/ or under preparation by complying all relevant National Laws, Safeguard Policy Statement (SPS 2009) of ADB, Environment Assessment Review Framework (EARF). IEE/EMP will be updated and revised in case of any change of scope and location. All measures and requirements as prescribed in EMP is being considered during implementation. Corrective or preventive action plans are reflected in Environment Monitoring Report and project implementation authority is taking care.
Small Ethnic Community Peoples:			
2.	The Borrower shall ensure, or cause the project Executing Agency to ensure that the preparation, design, construction, implementation and operation of the project and all project facilities comply with (a) all applicable laws, rules and regulations of the Borrower relating to small ethnic community peoples; (b) the indigenous peoples Safeguards; (c) the SECPF, and (d) all measures and requirements set forth in the respective SECDP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being Complied	No small ethnic people's impacts have yet been involved in the project activities.
Human and Financial Resources to Implement Safeguards Requirements:			
3.	The Borrower shall make available, or cause the project Executing Agency to make available, necessary budgetary and human resources to fully implement the EMP, the RP and the SECDP (if any).	Being Complied	Budgetary provisions are included in EMP for several ongoing packages of the emergency response project. Environment and Social Management Coordinator of PMU/PIU is in place. Human resource (project consultant, i.e., Environmental Specialist) for implementation of EMPs is in place for regular compliance.
Safeguards Related Provisions in Bidding Documents and Works Contracts:			
4.	The Borrower shall ensure, or cause the project Executing Agency to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to:	Being Complied	(a) The limited assessment (Environmental Screening) and Detailed Assessment (IEE including EMP) are being prepared by Project consultant. The EMP has also added in the bid document. The limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP) will be prepared for remaining packages also, and corrective measures will be disclosed to contractor and same will be reflected in the "Environment Monitoring Report". (b) The limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP) is prepared and added in the indicates budgetary provisions of bidding documents. (d) Haul roads are marked properly (by avoiding residences and agricultural land) before commencement of transportation of materials.
	(a) comply with the measures relevant to the contractor set forth in the limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), the RP and the SECDP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report;		
	(b) make available a budget for all such environmental and social measures;		
	(c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), the RP or the SECDP (if any);		
	(d) adequately record the condition of roads, agricultural land, and other infrastructure prior to starting to transport materials and construction, and		

Sl. No.	Covenant	Status of Compliance	Action Required
	(e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.		(e) Pathways, land which are likely to be affected for a short period during implementation of the sub project will be restored by concerned construction agency before acceptance of the work. Restoration status will be reflected in post construction monitoring report.
	Safeguard Monitoring and Reporting:		
5.	The Borrower shall do the following or cause the project Executing Agency to do the following: (a) submit semiannual safeguards Monitoring Reports to ADB and disclose relevant Information from such reports to affected persons promptly/upon submission; (b) If any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the project that were not considered in the limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), the RP or the SECDP (if any) promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) Report any actual or potential breach of compliance with the measures and requirements set forth in the limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), the RP or the SECDP (if any) promptly after becoming aware of the breach.	Being Complied	(a) As per action plan of ADB, semi-annual Monitoring Report is prepared regularly, which covers loan covenant part, management plan format and construction compliance. (b) With the development of project and implementation, in case of additional impacts/risks due to change in scope/area, will be reflected in limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (EMP) and accordingly Executing Agency (EA) will inform the ADB along with corrective action plan which will be reflected in the Monitoring Report. (c) in case of any breach of compliance with the measures and requirements set forth in the EMP; EA will promptly inform ADB, and suitable corrective action plan will be planned.
	Labor, Health and Anti-Human Trafficking:		
6.	The Borrower, the Project Executing Agency and Participating Pourashavas shall ensure that contractors, comply with all applicable labor, health, and safety laws, rules, and regulations of the Borrower and, in particular, (a) do not employ child labor for construction and maintenance activities; and (b) provide appropriate facilities (latrines, etc.) for workers at construction sites. The Borrower shall require contractors not to differentiate wages between men and women for work of equal value. The Borrower and the Project Executing Agency shall ensure that specific clauses are included in bidding documents to ensure adherence to these provisions, and that compliance shall be strictly monitored during Project implementation.	Being Complied	PMU through its Consultants is supervising and monitoring the compliance with labor, health, and safety law regulations. The project work will in full compliance with ADB's requirements
7.	The Borrower, the Project Executing Agency and Participating Pourashavas shall ensure that contractors shall disseminate information on the risk of transmission of sexually transmitted diseases, including HIV/AIDS, in health and safety programs to all construction workers employed under the Project. Specific provisions to this effect shall be included in bidding documents and civil works contracts, and compliance shall be monitored by the Project Executing Agency and reported to ADB.	Being Complied	Provisions are included (as per EMP & BID document) to carry out HIV/AIDS awareness programs for construction contractor, application of all relevant labour laws for health and safety including child labour law and engagement of local labours (preferably from economically backward group) covering women labours. In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken. All activities including awareness program will be reflected in "Monitoring Report".
8.	The Borrower, the Project Executing Agency and Participating Pourashavas shall ensure that awareness campaign on anti-human trafficking shall be conducted and that information and print material on anti-human trafficking shall be developed and distributed to all construction	Being Complied	

Sl. No.	Covenant	Status of Compliance	Action Required
	workers and the community in the Project areas throughout the project implementation period. Compliance shall be monitored by the Project Executing Agency and reported to ADB.		

IV. COMPLIANCE TO ENVIRONMENTAL MANAGEMENT PLAN

21. The Environmental Management Plan (EMP) are prepared for all the contract packages as guided in the Environmental Assessment Review Framework (EARF) for all the identified environmental impacts during construction and operation stages due to implementation of project activities and associated development. The aim of the EMP is to ensure implementation of the recommended mitigation measures effectively. The mitigation measures are designed either to prevent impacts or by mitigating those to reduce the effect to an acceptable level that complies with the environmental guidelines of DoE and with the guidelines of the ADB's SPS (2009) by adopting the most suitable cost-effective options. The EMP also ensures that the positive environmental impacts are conserved and enhanced.

22. The project is on implementing stage and several civil works has already started. The monitoring activities for the project during the reporting period including the preparation of environmental safeguard reports, environmental audits, fill up checklist, preparation of EMPs, and site visits. The prepared EMP had been added with the bidding document and ensured as a part of the contract document as well. Furthermore, the Contractors has also submitted a Site-specific EMP (SEMP) for their individual packages. However, for better implementation the PIU is following the EMP which was included in the bidding document as it was more stringent. Sample format for Environmental Audit Checklist, Environmental Management Plan (EMP) for both the small-scale civil works and Medical Gas System for the construction of isolation unit and ICU/CCU are given in Appendix I, Appendix II, and Appendix III respectively of the report. Additionally, EMP for the construction of Medical Center at Land Ports is given in Appendix IV.

A. Summary of Environmental Management

a. Noise Level

23. Being present in a silent area the optimum sound level for the construction site must maintain the limit of 50 dB during day time and 40 dB during night time (According to Noise control rules, 2006, DoE). Instruction has been provided to maintain heavy vehicle and machineries with oil & grease to reduce noise.

b. Air and Dust condition

24. Minor civil construction works are in progress under Project. All stockpiles are covered with tarpaulin. Dust pollution level is very low here. However, available water spraying tools are present in the construction site which will be in effect by the contractor based on their activity. It is also suggested to spray water at least twice a day during ongoing construction activity to control dust pollution in the site.

c. Drinking Water

25. Drinking water source is a crucial component in an any construction site which is responsible for workers health. The construction sites collect jar water from vendors or from hospital premises as a groundwater source.

d. Waste Management

26. Generally, two types of waste generates form a construction site. construction waste and general waste. Construction waste contains broken bricks, broken rebar, broken woods, wires, and sometimes cement-concretes. General waste contains food waste and organic waste generated by workers. Adequate number of dustbins are provided inside the subproject boundary to collect waste. The accumulated waste is later collected by city corporation vans and dumped in the waste dumping area defined by city corporation authority.

e. Sanitation and Hygiene

27. Several sanitation facilities are already present in the subproject site both for labors and engineers for maintaining proper sanitation in the area. Available water supply and handwashing facilities are also added to maintain hygiene. Regular cleaning and maintenance are done through responsible authority to keep it clean and germ free.

f. Occupational Health and Safety

28. Labors and workers are provided with proper personal protective equipment to properly maintain occupational health safety in the construction site and to avoid any kind of accident. Safety signs with possible danger - risk and safety tips are installed inside the project boundary for labors and workers knowledge.

g. COVID-19 Precautions

29. As the COVID-19 situation is becoming alarming once again in Bangladesh, the workers of the project are guided to take precautions to protect themselves from the COVID-19 virus and reduce the spread of the disease. Workers were motivated to get vaccinated with proper dose.

30. PPE, first aid boxes, soap and water are available at site. Hand sanitizer are available at site office. Infrared thermometer is also available at construction site. An EHS Officer (designated) is working at site appointed by the Contractor who is maintaining all the environmental issues following the EMP.

B. Summary of EMP Implementation Status

Several packages under this project are under construction stage. The PIU consultants visited the sites during this semestral and checked the compliance status of the EMP. The below Table VI.1 and Table VI.2 are given with compliance status for Construction of 50 Bed Isolation Unit and 10 Bed Critical Care Unit and for Installation of Medical Gas System respectively.

Table IV.1: Summary of EMP Implementation for Construction of 50 Bed Isolation Unit and 10 Bed Critical Care Unit

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
CONSTRUCTION PHASE							
Waste Management for Construction and COVID Waste	• Soil, water and air pollution from the improper management of wastes and excess materials from the construction sites. • The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	• **Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.** • Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. • Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines. • Train on correct use and disposal of PPEs and check that they understand. • Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust. • Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills. • Do not burn/throw in any wastes to the water bodies/drains. • The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	• Waste Management Plan has already been prepared. • Adequate safety equipment is provided by the contractors. • No COVID waste was found at the sites.	FC			
Management of Workers Facility	• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also provision of an appropriate number of toilets and hand-washing points. • At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other. • Check the availability of medical kits at the site on weekly basis. • Preparation of daily routine checkup including temperature screenings of the workers and staff.	• Contractors have provided sufficient soap, sanitizer and washing materials at work site. • Contractors purchased the medical kits and available at sites.	FC			
Drinking Water Quality	• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	• **Provide the drinking water that meets national standards.** • Select aquifers for drinking water free from arsenic and other contaminants. • Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection	• Contractors arranged drinking water either from hospital premises or bought it from vendors. • Workers are always using safe drinking water.	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
		of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.					
Drainage Congestion	• Waterlogging due to improper management of drainage for rainwater/liquid waste or wastewater.	• **Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem.** • Stockpile materials away from drainage lines. • Reconstruct internal road-side drains immediately if damaged by any activities.	• Contractor is aware about the drainage congestion. • Stockpiles are kept away from the drainage lines.	FC			
Dust/Air Quality Management	• Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads is a nuisance in the environment and can be a health hazard.	• **During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site.** • Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). • Cover haul vehicles carrying dusty materials moving outside the construction site. • Fit machinery/vehicles with appropriate exhaust systems and emission control devices.	• Contractors are taking action to reduce the dust from the construction activities. • Water spray, cleaning the debris from construction sites are monitored by the Contractor's engineer or PIU personnel.	FC			
Noise and Vibration Management	• Noise may have an impact on workers, patients, hospital staffs, local residents etc.	• **Appropriately site all noise generating activities to avoid noise pollution to workers, patients, hospital staffs, local residents etc.** • Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. • Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. • Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures.	• All noise generating works are performed away from the patients, hospital staff area. • Since the sites are located either on another floor or away from patients' ward/cabin therefore disturbance due to noise is limited.		PC		Contractors are advised to complete the noisy works consulting with the PWD officials or hospital authority.
Occupational Health and Safety (OHS)	• Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. • Lack of first aid and health care facilities in the immediate vicinity. • Health risk of construction workers due to COVID-19.	• Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. • **Prepare the health and safety guidance for COVID-19 at work sites and get approval from PMU, and strictly follow the guidance at worksite;** • Any worker showing symptoms of respiratory illness (fever, cold or cough) and has potentially been exposed to COVID-19 should be immediately removed from the site and tested for the virus at KMCH;	• Contractors provided adequate PPE to workers. • Workers are wearing the safety equipment during their works. • PIU/PWD personnel and the hospital authority are advising to follow COVID-19 guidance.	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
		• Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. • Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. • Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; • Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, hospital staff and patients against construction risks. • Simple poster/signage in Bangla explaining entry procedures. Signage available in hospitals to remind health personnel to wear masks if necessary and wash hands before entering/leaving. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Train all construction workers in OHS matters, and on the specific hazards of their work and maintain a register of the person present during the training. • Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, health staff, patients and their relatives.					
Site Reinstatement	• Damage due to debris, spoils, excess construction materials.	• Remove all spoils wreckage, rubbish, or temporary structures from the construction and camp sites; • All affected structures rehabilitated.	• Contractors are advised to handover the site after removing all debris, wastes, etc. when their work is completed. • Currently the work site is clean and it is maintained regularly.				Work is ongoing.

Table IV.2: Summary of EMP Implementation for Installation of Medical Gas System

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			
				FC	PC	NC	
CONSTRUCTION PHASE							
Waste Management for Construction and COVID Waste	• Soil, water and air pollution from the improper management of wastes and excess materials from the construction sites. • The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	• **Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.** • Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. • Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines. • Train on correct use and disposal of PPEs and check that they understand. • Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust. • Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills. • Do not burn/throw in any wastes to the water bodies/drains. • The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	• Waste Management Plan has already been prepared. • Adequate safety equipment is provided by the contractors. • No COVID waste was found at the sites.	FC			
Management of Workers Facility	• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also, provision of an appropriate number of toilets and hand-washing points. • At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other. • Check the availability of medical kits at the site on weekly basis. • Preparation of daily routine checkup including temperature screenings of the workers and staff.	• Contractors have provided sufficient soap, sanitizer and washing materials at work site. • Contractors purchased the medical kits and available at sites.	FC			
Drinking Water Quality	• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	• **Provide the drinking water that meets national standards.** • Select aquifers for drinking water free from arsenic and other contaminants. • Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection	• Contractors arranged drinking water either from hospital premises or bought it from vendors. • Workers are always using safe drinking water.	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			
				FC	PC	NC	
		of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.					
Drainage Congestion	• Water logging due to improper management of drainage for rainwater/liquid waste or wastewater.	• **Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem.** • Stockpile materials away from drainage lines. • Reconstruct internal road-side drains immediately if damaged by any activities.	• Contractor is aware about the drainage congestion. • Stockpiles are kept away from the drainage lines. •	FC			
Dust/Air Quality Management	• Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads are a nuisance in the environment and can be a health hazard.	• **During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site.** • Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). • Cover hauls vehicles carrying dusty materials moving outside the construction site. • Fit machinery/vehicles with appropriate exhaust systems and emission control devices.	• Contractors are taking action to reduce the dust from the construction activities. • Water spray, cleaning the debris from construction sites are monitored by the Contractor's engineer or PIU personnel.	FC			
Noise and Vibration Management	• Noise may have an impact on workers, patients, hospital staffs, local residents etc.	• **Appropriately site all noise generating activities to avoid noise pollution to workers, patients, hospital staffs, local residents etc.** • Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. • Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. • Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures.	• All noise generating works are performed away from the patients, hospital staff area. • Noisy works under this package is very limited. • Since the sites are located either on another floor or away from patients' ward/cabin therefore disturbance due to noise is limited.	FC			
Occupational Health and Safety (OHS)	• Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. • Lack of first aid and health care facilities in the immediate vicinity. • Health risk of construction workers due to COVID-19.	• Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. • **Prepare the health and safety guidance for COVID-19 at work sites and get approval from PMU, and strictly follow the guidance at worksite;** • Any worker showing symptoms of respiratory illness (fever, cold or cough) and has potentially been exposed to COVID-19 should be immediately removed from the site and tested for the virus at DMCH;	• Contractors provided adequate PPE to workers. • Workers are wearing the safety equipment during their works. • PIU/PWD personnel and the hospital authority are advising to follow COVID-19 guidance.	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			
				FC	PC	NC	
		• Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. • Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. • Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; • Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, hospital staff and patients against construction risks. • Simple poster/signage in Bangla explaining entry procedures. Signage available in hospitals to remind health personnel to wear masks if necessary and wash hands before entering/leaving. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Train all construction workers in OHS matters and on the specific hazards of their work and maintain a register of the person present during the training. • Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, health staff, patients and their relatives.					
Site Reinstatement	• Damage due to debris, spoils, excess construction materials.	• Remove all spoils wreckage, rubbish, or temporary structures from the construction and camp sites; • All affected structures rehabilitated.	• Contractors are advised to handover the site after removing all debris, wastes, etc. when their work is completed. • Currently the work site is clean and it is maintained regularly.				Work is ongoing.

V. SAFEGUARDS MONITORING RESULTS AND UNANTICIPATED IMPACTS

A. Safeguards Monitoring

31. The project construction related activities has already been started during this monitoring period and the EMP is under implementation by the respective contractors. The executing agency (DGHS) along with the assisting department (PWD) is responsible for monitoring and contractor is responsible for the implementation of the EMP as per the suggested guidelines. The institutional arrangement of implementing the EMP is given in Figure V.1 below. In case of any unanticipated impacts, the PIU will conduct further assessment of the environmental impact or reflect in the environmental monitoring report and will mobilize the resources needed to implement required mitigation measures including their monitoring.

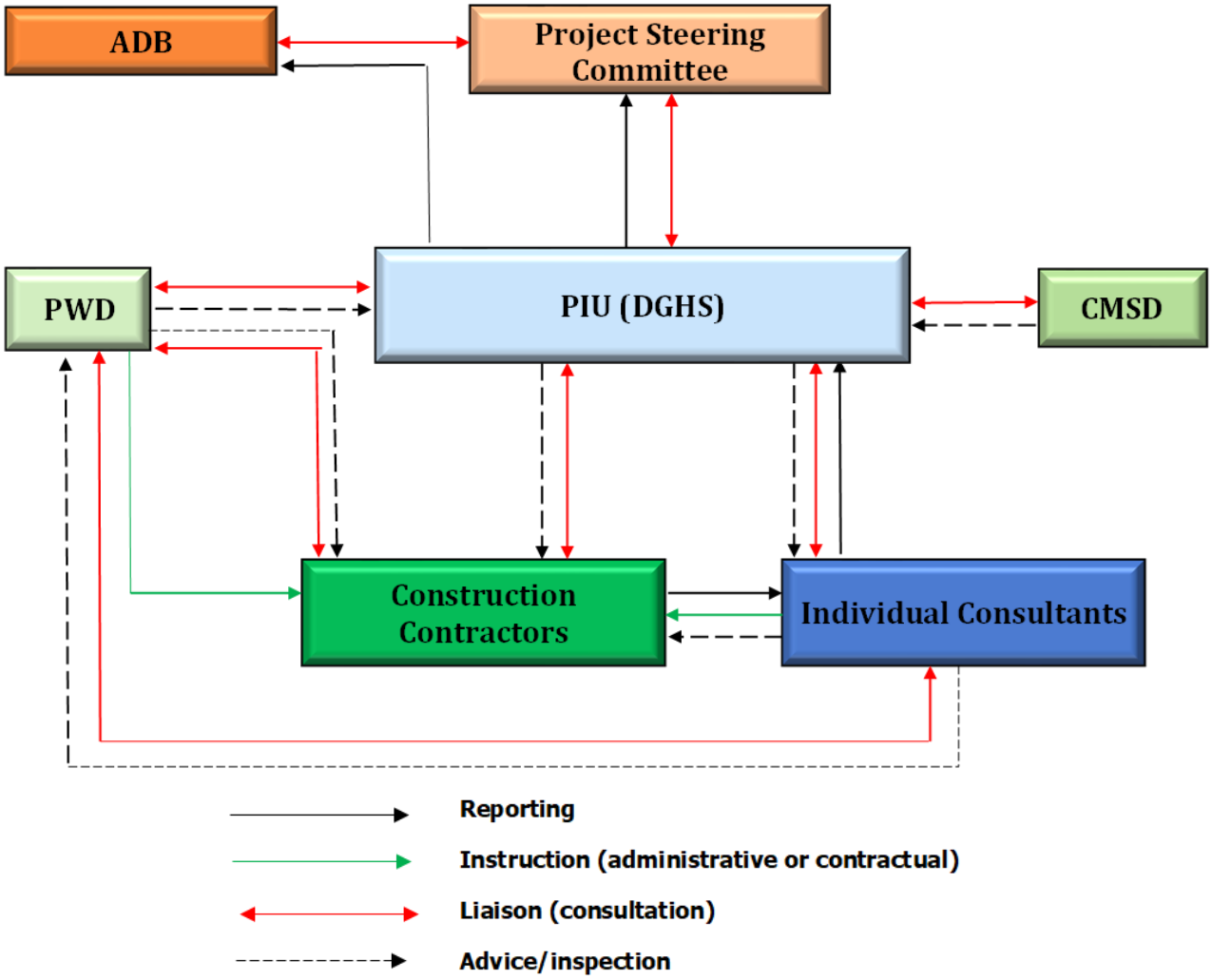


Figure V.1: Institutional Arrangement of the Project

32. The PIU is formed with several individual consultants from different sectors. One environmental safeguards specialist and one social safeguards specialist is appointed to monitoring

the safeguards performance of the Project. Table V.1 shows the details of the safeguards team of PIU and Table V.2 from the Contractors of the Project.

Table V.1: Safeguard Personnel in CREAP (PIU)

Name	Organization and Designation	Email	Contact no.
Dr. Md. Abul Fattah Sadee	DGHS/PIU Medical Officer/Safeguard Focal Person of CREAP	dr.sadee.creap@gmail.com	01937768274
Raisin Akhter Feroz	Individual Consultant Environmental Safeguards Specialist	raisinakhterferoz@gmail.com	01712555517
Md Mayen Uddin Tazim	Individual Consultant Social Safeguards (IP & IR) and Gender Specialist	mayentazim@gmail.com	01715108687

Table V.2: Safeguard Personnel in CREAP (Contractors)

Name of Safeguard Personnel	Institute	Package Name	Contact no.
Shah Mohammad Faridul Aziz	DMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01718431594
Ferdous Pavel		Installation of Medical Gas System	01312464896
Md. Moyen Uddin Babu	RMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01714257616
Md. Mustakin Billah		Installation of Medical Gas System	01958093026
Md. Masum Billal Khan	CuMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01930518355
Kawser Murad		Installation of Medical Gas System	01757860934
Not Yet Appointed	KMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	-
Md. Mustakin Billah		Installation of Medical Gas System	01958093026

33. Site visits on different medical facilities were conducted by the individual consultants and found the implementation of the EMP as satisfactory. The photographs of site visits are given in Annex V. However, it was noticed that the construction works of 50 bed Isolation Unit & 10 bed ICU/CCU for Mugda 500 bed General Hospital, Shaheed Suhrawardy Medical College Hospital, Mymensingh Medical College Hospital, Faridpur Medical College Hospital and Cumilla Medical College Hospital had already been finished within this monitoring period.

Table V.3: List of site visit during the reporting period (up to December 2022)

Name of Package	Date of Inspection	Conducted by Whom
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and Installation of Medical Gas System at Faridpur Medical College Hospital, Faridpur	03 August 2022	Mohammad Kamruzzaman, Civil Engineer
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and Installation of Medical Gas System at Mymensingh Medical College Hospital, Mymensingh	16 August 2022	Mohammad Kamruzzaman, Civil Engineer
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and Installation of Medical Gas System at Dhaka Medical College Hospital, Dhaka	26 September 2022	Mohammad Kamruzzaman, Civil Engineer
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and	28 December 2022	Raisin Akhter Feroz, Environmental

Name of Package	Date of Inspection	Conducted by Whom
Installation of Medical Gas System at Rajshahi Medical College Hospital, Dhaka		Safeguards Specialist

B. COVID-19 Response Monitoring

34. During the site visits by the Individual Consultants several information regarding the implementation of COVID-19 response measurements at work sites was collected. Additionally, status of the EMP implementation on the COVID-19 response also collected through phone call to different contractors. Since there are only three sites presently has ongoing construction works therefore the Table V.3 below provides the respective sites' information on the implementation on COVID-19 response monitoring.

Table V.4: COVID-19 Response Performance at Work Site

COVID-19 Response Questions	DMCH	RMCH	CuMCH	MMCH	Remarks
Engage a full time EHS professional at site	FC	FC	FC	FC	
Purchase thermometer gun, soap, hand sanitizer, disinfectants, and PPEs (mask, hand gloves, hard shoes etc.) and keep it at worksite office.	FC	FC	FC	FC	
Establish site entrance protocol. Redesign the site safety notices/signboards/protocol according to the ADB guidelines	FC	FC	FC	FC	
Arrange washbasin, soap, and clean water at the entrance of every worksite/campsite. Also keep either a disinfectant tub for shoes or keep disinfectant spray that must be sprayed under the boots/hard shoes of the persons entering worksite.	FC	PC	PC	PC	Contractors are advised to arrange necessary cleaning materials
Provide every personnel working in the site with mask, hand gloves and hard shoes for their personal use.	FC	FC	FC	FC	
Everyone entering the worksite must wear a mask, gloves and hard shoes	FC	PC	PC	PC	Workers are advised to wear the PPEs and Contractor's Engineer will ensure it
Daily worksite protocol	FC	FC	PC	FC	Contractor is advised to ensure
At the start and end of the day disinfect the total worksite.	PC	FC	PC	FC	Contractor is advised to ensure
Encourage site personnel/camp dwellers to not touch their eyes, mouth or nose if not washed thoroughly with soap recently. Also discourage hand shaking or hugs.	PC	FC	PC	PC	Workers are advised to follow the rules
Arrange a mandatory site brief on COVID awareness in the morning. The session must be conducted by the EHS/medical professional.	PC	PC	PC	PC	Contractor's Focal Person is advised to ensure it in daily toolbox meeting
While worksites are commonly well ventilated (if not make sure the work sites are well ventilated), ensure that the camp sites including the rooms designated for the camp dwellers are well ventilated and spacious.	PC	FC	PC	PC	Contractor is advised to ensure

COVID-19 Response Questions	DMCH	RMCH	CuMCH	MMCH	Remarks
Discourage site personnel to gather and gossip at any time, rather encourage physical distance while chatting/discussing.	FC	FC	PC	FC	Workers are advised to follow the rules
Restrict worksite personnel to go outside unnecessarily. Also restrict campsite personnel to go outside without any valid cause.	FC	FC	FC	FC	
If any person related at worksite/campsite fall victim to COVID-19 or being kept isolated for pre-caution, consider paid leave with no exception allowed.	No	No	No	No	
Train workers on how to properly put on, use/wear, and take off protective clothing and equipment. The on-site EHS/Medical person should be in-charge of these trainings. These trainings must maintain the WHO's social distancing protocol. Make these trainings mandatory at worksites. Provide 10-15 minutes of a workday for such 'training and encouragement' activities.	PC	FC	PC	PC	Contractor's Focal Person is advised to ensure it in daily toolbox meeting

C. Safeguards Training

a. Training for Project's Officials

35. A training on Environmental Safeguards and Management with all respective official from PIU, PWD, Consultants had been completed successfully on 27 October 2021 through online platform. The training was designed with several sessions covering the ADB safeguard policy to its management and monitoring. The environmental safeguard personnel from the ADB, BRM conducted different sessions along with the environmental safeguard consultant of PIU.

36. The ADB has advised the DGHS/PIU to prepare a list of participants with all the potentials officials both from the DGHS and PWD to organize another training programme on environmental safeguards. However, during this monitoring period (July-December 2022) no training has been arranged on environmental safeguards for the respective project's officials. The DGHS/PIU will try to organize the training session with the help of the Consultants in the next semestral. A list of the tentative training participants is given in Annex IV of this report.

b. Training for Contractors/Workers

37. A training on occupational health and safety was conducted prior to commencement of physical work for construction of isolation center and ICU/CCU at Rajshahi Medical College Hospital. At this training the Director of RMCH, PWD Officials, relevant stakeholders and the contractor with its workforce were present. Additionally, an on-job training was provided by the Environmental Safeguards Specialist to the Contractor's workforce during the site visit for monitoring of EMP implementation. The details of this training session are given below Table V.5.

Table V.5: Training activities at CREAP sites during Jul-Dec 2022

Sl.	Training Title	Date	Package	Category of Participant	No. of Participant		
					Male	Female	Total
1	Training on Occupational Health & Safety	28/12/2022	50 bed Isolation Unit & 10 bed ICU/CCU	PIU Staff, PWD Officials, Contractor, Workers	14	0	14

Introduction Training on OHS at RMCH

On-job Training at RMCH

Figure V.2: Photographs of Training on OHS

D. ADB Mission

38. No ADB mission was conducted during this monitoring period. The last mission was the ADB Mid-term Review Mission from 6-14 June 2022. The Mission carried out a detailed discussion on the overall safeguard implementation progress and provided guidance on how to enhance quality of safeguard reports. Table V.4 below shows the status of recommended corrective action measures

proved during the ADB mission to PIU.

Table V.6: Status of Implementation of Corrective Action Plan

Recommended Corrective Action Measures	Responsibility	Timeline	Implementation Status
DGHS/PIU will prepare EMP and IEE for Tamabil Land port screening facilities by and submit for ADB's approval	PIU	by 20 July 2022	Already submitted
DGHS/PIU to ensure timely submission of EMR ensuring quality by incorporating earlier recommendations	PIU	by 10 July 2022	Submitted
DGHS/PIU will prepare and share the EMP of remaining packages for Isolation unit, ICU/CCU with ADB for their disclosure	PIU	by 20 July 2023	All EMPs are submitted
DGHS/PIU to review existing GRM and propose changes for strengthening government's GRM procedure for both infrastructure and medical services	PIU	by 31 January 2023	Yet to be finalized

VI. IMPLEMENTATION OF GRIEVANCE REDRESS MECHANISM AND COMPLAINTS RECEIVED FROM STAKEHOLDERS

39. The grievance redress mechanism (GRM) is a process of handling complaints that is understandable, transparent, gender-responsive, culturally appropriate, and easily accessible to affected persons without cost and retribution. The Grievance Redress Mechanism (GRM) shall resolve complaints in a time-bound and transparent manner. MOHFW will ensure that affected persons will have the chance to express their legitimate grievances or to file a complaint about the project by setting up a GRM as soon as the loan becomes effective. The GRM process will be aligned with the process adopted by MOHFW; however, compliance with the policy principles of ADB SPS 2009 will be ensured. The GRM will be reviewed in consultation with MOHFW and DGHS and finalized before the effectiveness.

40. **Objectives:** The GRM aims to resolve complaints in a time-bound and transparent manner. MOHFW will ensure that: (i) all complaints are registered, investigated, and resolved in a manner consistent with the requirements of SPS 2009 and the government; (ii) the complainants are kept informed on the status of their concerns and the resolutions available to them; and (iii) adequate staff and resources will be made available to implement the GRM.

41. **Filing a complaint:** Affected persons can submit a complaint either verbally or in written form. Verbal complaints can be submitted through a phone call, walk-in or in person while written complaints can be posted through mail/letter, comments/suggestions drop-box, MOHFW website, email, or fax. However, due to the restrictions of face-to-face communication because of the COVID-19 outbreak, complaint submission in written format or through phone calls will be recommended.

42. DGHS has a web-based, text message-based, and phone-based platform for citizen engagement that can be used as a complementary way of submitting a complaint; its link is MOHFW will designate a staff as the GRM Focal Person.

43. **Structure:** The grievance redress mechanism will be under the responsibility of the Project Implementation Committee (PIC) under the chairmanship of DG, DGHS. MOHFW and DGHS will ensure the representation of women in the committee.

44. **Levels of grievance redress.** The complainant is not restricted to seek redress through the legal system at any point in the GRM process. Complainants or affected persons can seek redress to their complaints in three levels (see figure VI.1).

45. It is to be noted that the PIU has yet not formulated the GRM committee for this Project. Additionally, it yet not received any complaints during this monitoring period through any of the above-mentioned platform.

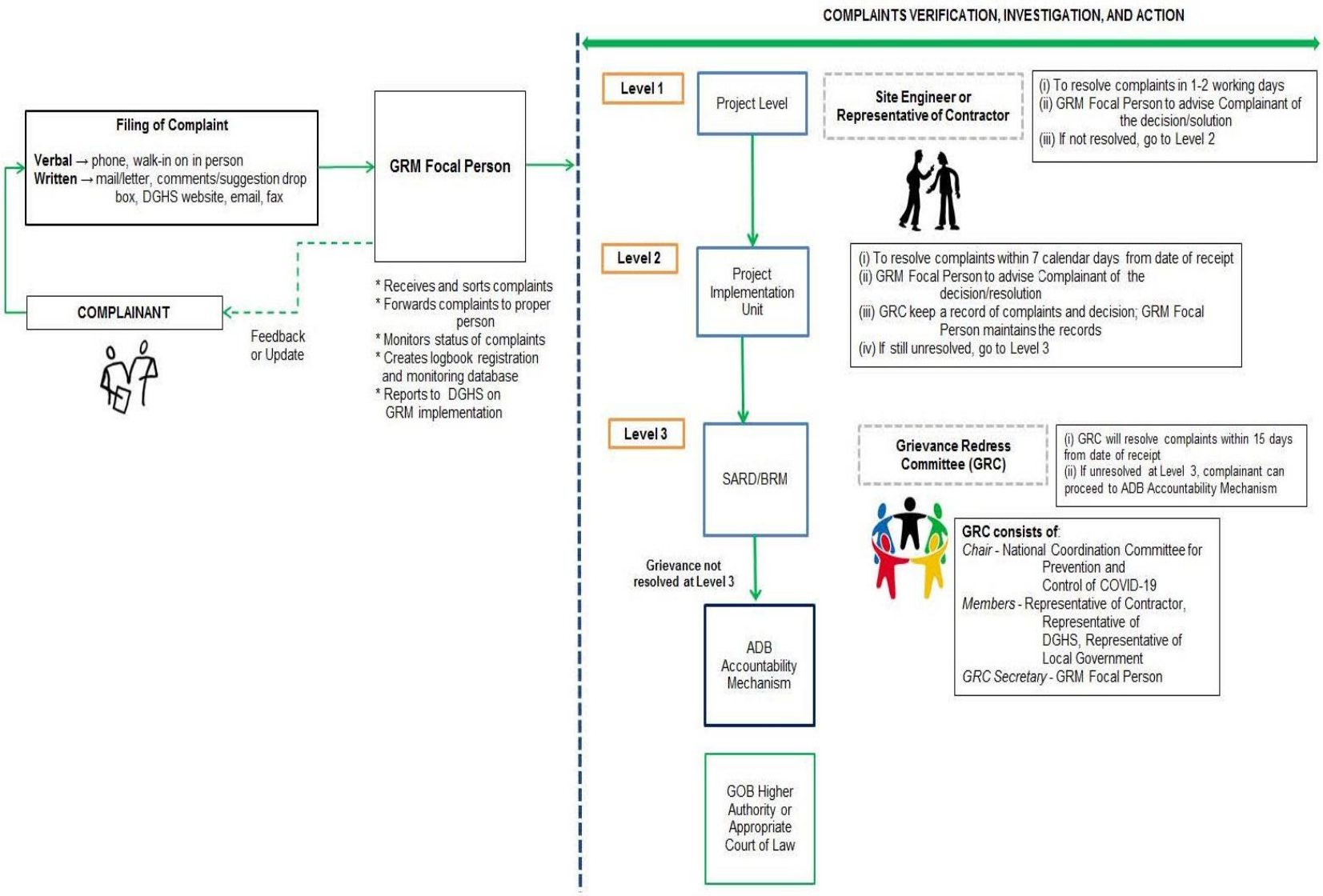


Figure VI.1: Grievance Redress Mechanism

VII. CONCLUSION AND RECOMMENDATIONS

46. Overall, the COVID-19 response emergency assistance project has substantial compliance to the environmental safeguard's requirement set by the ADB and the GoB. The environmental safeguard monitoring report preparation was ongoing by project authority. No notices of violation were received by the PIU for any of the centers.

47. COVID-19 response emergency assistance project has complied with the environmental provisions of the loan covenant and the environmental safeguards requirement set by the ADB.

A. Action Plan for the Next Period

Table VII.1: Corrective action plan for Jan to Jun 2023

Sl.	Recommended Corrective Action Measures	Responsibility	Timeframe	Remarks
1	The environmental safeguards specialist will conduct field visits as per the requirement to monitor the implementation of EMP and other ongoing works on preparation of EMPs for several packages.	PIU Consultants	By 31 June 2023	
2	Conduct adequate consultations in the subproject sites with the relative stakeholders.	PIU Consultants	By 31 June 2023	
3	Confirmation of Safeguard Focal Person for each Contractor/Package under this Project.	PIU Consultants	By 28 February 2023	
4	Formulation of GRC for the Project in consultation and assistance with the PIU and Social Safeguards (IP & IR) and Gender Specialist.	PIU	By 28 February 2023	It was advised to achieve the recommendation by 31 July 2022. However, the PIU was not able to do that. Therefore, additional timeline has been proposed.

ANNEX

Annex I: Environmental Audit Checklist

BAN: COVID-19 RESPONSE EMERGENCY ASSISTANCE

ENVIRONMENTAL CHECKLIST/ AUDIT FOR THE EXISTING FACILITIES

ENVIRONMENTAL CHECKLIST				
Name and address of the medical facility:				
Type of healthcare facility:				Number of beds:
Average no of patients in out-patient dept.:				Date of survey:
Are any of the following environmental concerns currently in evidence at the site? (Describe situation for any that are marked 'Y' and 'N')	**Y**	**N**	**N/A**	**Comments/Description**
General and Medical Waste (MW) Management				
Quantity of medical waste generated/day from the facility				
Is there any arrangement of different bins for primary disposal of different type of MWs (**infectious waste, liquid waste, plastic waste, sharp waste, and general waste**)?				
Any arrangement of collection and transportation method of different types of waste from the facility				
Any in-house facility to treat infectious waste (autoclaving)				
Any recycling system for plastic and glass				
Any in-house facility to treat other wastes				
Disposal method of wastes from the facility				
Any deep burial pits for final disposal of the wastes				
If no in-house facility to treat infectious waste, any external facility i.e., common waste treatment facility for treatment and disposal				
Mode of transport of medical waste to external treatment facility				
Any MWM team responsible for monitoring the facility Level of awareness and training at different levels of staff to improve MWM Actions taken to improve MWM				
Any NGO or external agency working with the facility to improve MWM				
Other Environmental Issues				
Raw sewage discharge from the facility				
Poor drainage system in and around the facility				
Quality of drinking water supplied in the facility				
Health and Safety Issues				
Any occupational health and safety (OHS) plan and procedures				
Any OHS training and safety drills				
Available and appropriate PPEs and safety gears				

ENVIRONMENTAL CHECKLIST				
Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.)				
Provision of fire safety				
Provision of safe drinking water				
Provision of sanitary facilities separate from patients and health workers (also separate male and female)				
Any community health and safety plan and procedures				

Recommendations/comments for further improvement:

Annex II: EMP for Construction of 50 Bed Isolation Unit and 10 Bed Critical Care Unit

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
CONSTRUCTION PHASE						
Waste Management for Construction and COVID Waste	• Soil, water and air pollution from the improper management of wastes and excess materials from the construction sites. • The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	• **Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.** • Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. • Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines. • Train on correct use and disposal of PPEs and check that they understand. • Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust. • Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills. • Do not burn/throw in any wastes to the water bodies/drains. • The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	• Record of waste type and quantity and the disposal method	Construction camp and work sites during construction period	Contractor	PIU and Environmental Consultant (ES)
Management of Workers Facility	• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also provision of an appropriate number of toilets and hand-washing points. • At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other. • Check the availability of medical kits at the site on weekly basis. • Preparation of daily routine checkup including temperature screenings of the workers and staff.	• Visual inspection & consultation with worker; • Health checkup record.	Construction camp site during construction period	Contractor	PIU and ES
Drinking Water Quality	• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	• **Provide the drinking water that meets national standards.** • Select aquifers for drinking water free from arsenic and other contaminants. • Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection of	• Record of water-borne diseases	Regular monitoring the drinking water source during	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.		construction period		
Drainage Congestion	• Waterlogging due to improper management of drainage for rainwater/liquid waste or wastewater.	• **Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem.** • Stockpile materials away from drainage lines. • Reconstruct internal road-side drains immediately if damaged by any activities.	• Visual inspection & consultation with hospital staff and visitors.	In the project area during construction period	Contractor	PIU and ES
Dust/Air Quality Management	• Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads is a nuisance in the environment and can be a health hazard.	• **During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site.** • Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). • Cover haul vehicles carrying dusty materials moving outside the construction site. • Fit machinery/vehicles with appropriate exhaust systems and emission control devices.	• Visual inspection & consultation with hospital staff, doctors, patients and their relatives	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Noise and Vibration Management	• Noise may have an impact on workers, patients, hospital staffs, local residents etc.	• **Appropriately site all noise generating activities to avoid noise pollution to workers, patients, hospital staffs, local residents etc.** • Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. • Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. • Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures.	• Visual inspection & consultation with hospital staff, doctors, patients and their relatives	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Occupational Health and Safety (OHS)	• Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. • Lack of first aid and health care facilities in the immediate vicinity. • Health risk of construction workers due to COVID-19.	• Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. • **Prepare the health and safety guidance for COVID-19 at work sites and get approval from PMU, and strictly follow the guidance at worksite;** • Any worker showing symptoms of respiratory illness (fever, cold or cough) and has potentially been exposed to COVID-19 should be immediately removed from the site and tested for the virus at KMCH;	• Visual inspection & consultation with hospital staff, doctors, patients and their relatives • Record of accidents • Obtain record of training • Provision of regular temperature check, using disinfectants and also provision of time-to-time hand wash are	Contractor' site office and work site during construction	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		• Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. • Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. • Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; • Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, hospital staff and patients against construction risks. • Simple poster/signage in Bangla explaining entry procedures. Signage available in hospitals to remind health personnel to wear masks if necessary and wash hands before entering/leaving. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Train all construction workers in OHS matters, and on the specific hazards of their work and maintain a register of the person present during the training. • Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, health staff, patients and their relatives.	required to limit the COVID-19 pandemic.			
Site Reinstatement	• Damage due to debris, spoils, excess construction materials.	• Remove all spoils wreckage, rubbish, or temporary structures from the construction and camp sites; • All affected structures rehabilitated.	• Visual inspection & consultation with local people	At the end of construction period	Contractor	PIU and ES
OPERATION PHASE						
COVID Waste Management	• COVID waste has posed serious health hazards and can spread the contagion among hospital staff, waste handlers and the community.	• **Prepare medical waste management plan that will cover the waste generated from the response to the COVID-19 infection. The plan will follow ADB's guidance note on managing medical waste during COVID-19 pandemic as well as any other government regulations.** • All medical waste produced during the care of COVID-19 patients must be considered as infectious waste and should be segregated and collected safely in designated colored coded containers. • Use of colored bins (like yellow) and to put Covid wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any	• Visual inspection and consultation with hospital staff and cleaners. • Record of waste type and quantity and the disposal method.	Hospital area especially in COVID ward during operation period	MCH	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		other germicides and then safely transport them through marked vehicles in a marked place. • Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with WHO COVID-19 Guidelines. • Train the staffs on color coding and handling of infectious Covid wastes.				
Medical Waste Management	• Poor management of medical waste exposes healthcare workers, waste handlers and the community to infections, toxic effects and injuries. • Soil, water and air pollution from the improper management of wastes generated from the facility.	• **Provision of color coded, covered receptacles in strategic positions of the facility for separate categories of waste and regular cleaning of waste bins. Labels showing the type of waste that should be disposed of in each container should be placed near to the bins to guide staff and reinforce good habits.** • Medical wastes generated in the hospital will be treated by in-house facility and then this treated wastes will be disposed of as per a pre-determined SOP in accordance with international good practices. Transport the medical waste with covered vehicle. The records of waste disposal will be maintained as proof for proper management as designed. • Ensure necessary PPE (gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required, and ensure them to wear PPE when handling and disposing waste according to national and WHO guideline. • Do not burn the wastes openly or throw into water bodies or do not dispose on soil. • Audit for any off-site waste disposal will be required on a monthly basis and institute any remedial measures required to ensure compliance.	• Visual inspection and consultation with hospital staff and cleaners. • Record of waste type and quantity and the disposal method.	Hospital area during operation period	MCH	DGHS
Hazards due to Substation & Generator	• Noise and vibration may have an impact on hospital staff, doctors, patients and their relatives; • Accidental spillage of oil and toxic coolants that would contaminate land and water. • Risk of fire and electrocution hazards from substation.	• Have provision to use canopy to absorb 0.7 dB to 0.8dB of noise. • Periodic maintenance of equipment such as transformers and capacitors to minimize noise generation. • Provision of oil-water separator and oil containment structure. • Substation room will be entry restricted and security staff assigned to prevent unauthorized public access. Place warning signs at substation and generator room. • Ensure firefighting arrangement such as fire extinguishers, fire alarms etc. in the substation site. • Use of PPE, proper training, awareness, keeping safe distance from hazardous points, maintaining safety of high switchyard and cable gallery.	• Regular inspection and testing of all safety features and hazard control measures and personal protective features.	Substation room during operation period	MCH	DGHS
Occupational Health and Safety	• Needle-sticks, surgical cuts, and other injuries posing transmission risk of blood-borne diseases such as COVID-19, Hepatitis C, HIV-AIDS, etc.	• **Prepare a health and safety guidance for COVID-19 and strictly follow the guidance at the facility.** • Refer to IFC EHS Guidelines for Healthcare Facilities (2007) and relevant national guidelines and protocols.	• Regular inspection and testing of all safety features and hazard control measures and	Hospital area	MCH	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
including COVID H&S	• Dermatitis and allergic reactions due to workplace exposures.	• Implement suitable safety standards for all workers and facility visitors. • Mandatory use of personal protective equipment and safety gears, where required. • Arrangements for safe drinking water and sanitation facilities. • Provide regular OHS training to healthcare workers. • Provide incentives to staff and create a work-life balance in work schedule.	personal protective features	during operation period		
Accidental Releases of Gas and Fluids	• Leakage of infectious or hazardous substances may pose serious health hazards and can spread the contagion among hospital staff and patients, cleaners etc.	• **Develop an Emergency Response Plan and follow strictly during emergency incident.** • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Wear disposable gloves and, if aerosols are formed, glasses and a respirator for particles. • Cover the contaminated area with a disinfectant in a concentric way, starting at the edge and progressing towards the center of the contamination. • Avoid spraying or pouring the disinfectant from above, which can cause aerosols. • Mop up, and dispose of all waste and contaminated material in the appropriate container (infectious waste). • Conduct monthly safety audit of facility to identify fire risks, electrocution hazards and other unsafe conditions, and assess adequacy of fire extinguishers and first aid provisions.	• Record of regular inspection.	Hospital area during operation period	MCH	DGHS

Annex III: EMP for Installation of Medical Gas System

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
CONSTRUCTION PHASE						
Waste Management for Construction and COVID Waste	• Soil, water and air pollution from the improper management of wastes and excess materials from the construction sites. • The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	• **Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.** • Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. • Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines. • Train on correct use and disposal of PPEs and check that they understand. • Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust. • Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills. • Do not burn/throw in any wastes to the water bodies/drains. • The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	• Record of waste type and quantity and the disposal method	Construction camp and work sites during construction period	Contractor	PIU and Environmental Consultant (ES)
Management of Workers Facility	• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also, provision of an appropriate number of toilets and hand-washing points. • At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other. • Check the availability of medical kits at the site on weekly basis. • Preparation of daily routine checkup including temperature screenings of the workers and staff.	• Visual inspection & consultation with worker; • Health checkup record.	Construction camp site during construction period	Contractor	PIU and ES
Drinking Water Quality	• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	• **Provide the drinking water that meets national standards.** • Select aquifers for drinking water free from arsenic and other contaminants. • Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.	• Record of water-borne diseases	Regular monitoring the drinking water source during construction period	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
Drainage Congestion	• Water logging due to improper management of drainage for rainwater/liquid waste or wastewater.	• **Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem.** • Stockpile materials away from drainage lines. • Reconstruct internal road-side drains immediately if damaged by any activities.	• Visual inspection & consultation with hospital staff and visitors.	In the project area during construction period	Contractor	PIU and ES
Dust/Air Quality Management	• Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads are a nuisance in the environment and can be a health hazard.	• **During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site.** • Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). • Cover hauls vehicles carrying dusty materials moving outside the construction site. • Fit machinery/vehicles with appropriate exhaust systems and emission control devices.	• Visual inspection &consultation with hospital staff, doctors, patients and their relatives	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Noise and Vibration Management	• Noise may have an impact on workers, patients, hospital staffs, local residents etc.	• **Appropriately site all noise generating activities to avoid noise pollution to workers, patients, hospital staffs, local residents etc.** • Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. • Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. • Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures.	• Visual inspection & consultation with hospital staff, doctors, patients and their relatives	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Occupational Health and Safety (OHS)	• Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. • Lack of first aid and health care facilities in the immediate vicinity. • Health risk of construction workers due to COVID-19.	• Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. • **Prepare the health and safety guidance for COVID-19 at work sites and get approval from PMU, and strictly follow the guidance at worksite;** • Any worker showing symptoms of respiratory illness (fever, cold or cough) and has potentially been exposed to COVID-19 should be immediately removed from the site and tested for the virus at DMCH; • Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. • Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them.	• Visual inspection & consultation with hospital staff, doctors, patients and their relatives • Record of accidents • Obtain record of training • Provision of regular temperature check, using disinfectants and also provision of time-to-time hand wash are required to	Contractor' site office and work site during construction	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		• Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; • Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, hospital staff and patients against construction risks. • Simple poster/signage in Bangla explaining entry procedures. Signage available in hospitals to remind health personnel to wear masks if necessary and wash hands before entering/leaving. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Train all construction workers in OHS matters and on the specific hazards of their work and maintain a register of the person present during the training. • Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, health staff, patients and their relatives.	limit the COVID-19 pandemic.			
Site Reinstatement	• Damage due to debris, spoils, excess construction materials.	• Remove all spoils wreckage, rubbish, or temporary structures from the construction and camp sites; • All affected structures rehabilitated.	• Visual inspection & consultation with local people	At the end of construction period	Contractor	PIU and ES
OPERATION PHASE						
COVID Waste Management	• COVID waste has posed serious health hazards and can spread the contagion among hospital staff, waste handlers and the community.	• **Prepare medical waste management plan that will cover the waste generated from the response to the COVID-19 infection. The plan will follow ADB's guidance note on managing medical waste during COVID-19 pandemic as well as any other government regulations.** • All medical waste produced during the care of COVID-19 patients must be considered as infectious waste and should be segregated and collected safely in designated colored coded containers. • Use of colored bins (like yellow) and to put Covid-19 wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. • Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with WHO COVID-19 Guidelines. • Train the staffs on color coding and handling of infectious Covid-19 wastes.	• Visual inspection and consultation with hospital staff and cleaners. • Record of waste type and quantity and the disposal method.	Hospital area especially in COVID ward during operation period	MCH	DGHS
Medical Waste	• Poor management of medical waste exposes healthcare workers, waste	• **Provision of color coded, covered receptacles in strategic positions of the facility for separate categories of waste and regular cleaning of waste bins. Labels showing the type of waste that should be disposed**	• Visual inspection and consultation with	Hospital area	MCH	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
Management	handlers and the community to infections, toxic effects and injuries. • Soil, water and air pollution from the improper management of wastes generated from the facility.	**of in each container should be placed near to the bins to guide staff and reinforce good habits.** • Medical wastes generated in the hospital will be treated by in-house facility and then these treated wastes will be disposed of as per a pre-determined SOP in accordance with international good practices. Transport the medical waste with covered vehicle. The records of waste disposal will be maintained as proof for proper management as designed. • Ensure necessary PPE (gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required and ensure them to wear PPE when handling and disposing waste according to national and WHO guideline. • Do not burn the wastes openly or throw in to water bodies or do not dispose on soil. • Audit for any off-site waste disposal will be required on a monthly basis and institute any remedial measures required to ensure compliance.	hospital staff and cleaners. • Record of waste type and quantity and the disposal method.	during operation period		
Occupational Health and Safety including COVID H&S	• Needle-sticks, surgical cuts, and other injuries posing transmission risk of blood-borne diseases such as COVID-19, Hepatitis C, HIV-AIDS, etc. • Dermatitis and allergic reactions due to workplace exposures.	• **Prepare a health and safety guidance for COVID-19 and strictly follow the guidance at the facility.** • Refer to IFC EHS Guidelines for Healthcare Facilities (2007) and relevant national guidelines and protocols. • Implement suitable safety standards for all workers and facility visitors. • Mandatory use of personal protective equipment and safety gears, where required. • Arrangements for safe drinking water and sanitation facilities. • Provide regular OHS training to healthcare workers. • Provide incentives to staff and create a work-life balance in work schedule.	• Regular inspection and testing of all safety features and hazard control measures and personal protective features	Hospital area during operation period	MCH	DGHS
Accidental Releases of Gas and Fluids	• Leakage of infectious or hazardous substances may pose serious health hazards and can spread the contagion among hospital staff and patients, cleaners etc.	• **Develop an Emergency Response Plan and follow strictly during emergency incident.** • Follow the suggested medical gas safety management plan as given in Annex 4. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Wear disposable gloves and, if aerosols are formed, glasses and a respirator for particles. • Cover the contaminated area with a disinfectant in a concentric way, starting at the edge and progressing towards the center of the contamination. • Avoid spraying or pouring the disinfectant from above, which can cause aerosols. • Mop up, and dispose of all waste and contaminated material in the appropriate container (infectious waste).	• Record of regular inspection.	Hospital area during operation period	MCH	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		• Conduct monthly safety audit of facility to identify fire risks, electrocution hazards and other unsafe conditions, and assess adequacy of fire extinguishers and first aid provisions.				
Medical Gas Safety Management	• Haphazardly stored and lack of regular maintenance often create hazards. • Cylinders are often the same colour regardless of the contents and the labelling is often a poor quality and inconsistent. Because of this, there is a risk of the wrong cylinder being delivered accidentally to healthcare facilities. • Poorly trained staffs are not aware of the importance of ensuring the correct tanks are connected to the right lines and management of gas cylinders	• **Develop a Medical Gas Safety Management Plan during the operation and follow strictly.** • Follow the suggested medical gas safety management plan as given in Annex 4. • Regularly check and update the management plan as per the requirement. • Follow the Emergency Response Plan if required and maintain a direct communication channel with the emergency response team/in case of emergency. • Ensure labeling, safety signs and inspection for all the gas cylinders and locations. • Ensure regular training to the personnel engaged with the medical gas safety management.	• Record of regular inspection.	Hospital area during operation period	MCH	DGHS

Annex IV: EMP for Construction of Medical Centers at Port of Entry

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
PRE-CONSTRUCTION PHASE						
Obtaining of SSC/NOCs/ECC	• Failure to obtain necessary consents, permits, NOC's can result in design revisions and/or stoppage of the Works	• The proposed medical centre will be constructed in BLPA own empty land, and it is within the boundary of its administrative area. • The BLPA has already issued a NOC to the DGHS/Project to construct the facility.	• Record of NOC	Before design confirmation	PIU	DGHS
Existing Utilities	• Disruption of services (short term).	• Drawing from the consultant's visit, there was no utility or services found at the selected location. However, some lamp posts were observed along the boundary wall but those will not be impacted due to the construction. • There is no vegetation within the proposed site, but 4-6 small trees are found along the boundary wall and those will not be impacted during construction. In addition, there is no water body nearby sub-project site. No impact is expected on flora and fauna. • If construction work is expected to disrupt the lamp posts and vegetations, notice to the respective authority shall be served 7 days in advance and again 1 day prior to start of construction.	• Record of request letter and approval	Before construction	PIU	DGHS
CEMP Verification	• Mitigation will be inadequate if the CEMP is not fully specified	• Review CEMP to ensure all primary contractor responsibilities are fully reflected, including monitoring and reporting	• Approval of CEMP	Before construction	PIU/ES	DGHS
Sources of Materials	• Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and water pollution.	• Prepare list of approved quarry sites and sources of materials • Select authorized supplier prior to sourcing the materials • Sand/silt material that only quarries duly licensed by the authorized government agencies will be considered as sources of construction material for the project. • Illegal quarries and hill cutting is not permitted at all.	• Approval of the supplier	Before construction	PIU/ES	DGHS
EMP Implementation Training	• Irreversible impact to the environment, contactor representative/workers, PWD/PIU officials	• Training will be required to undergo EMP implementation including waste management, Standard operating procedures (SOP) for construction works; health and safety (H&S), core labor laws, applicable environmental laws, etc.	• Record of training	Before construction	PIU/ES	DGHS
CONSTRUCTION PHASE						

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
Waste Management for Construction and COVID Waste	• Soil, water, and air pollution from the improper management of wastes and excess materials from the construction sites. • The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	• **Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.** • Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. • Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines. • Train on correct use and disposal of PPEs and check that they understand. • Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust. • Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills. • Do not burn/throw in any wastes to the water bodies/drains. • The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	• Record of waste type and quantity and the disposal method	Construction camp and work sites during construction period	Contractor	PIU and Environmental Consultant (ES)
Management of Workers Facility	• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also, provision of an appropriate number of toilets and hand-washing points. • At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other. • Check the availability of medical kits at the site on weekly basis. • Preparation of daily routine checkup including temperature screenings of the workers and staff.	• Visual inspection & consultation with worker; • Health checkup record.	Construction camp site during construction period	Contractor	PIU and ES
Drinking Water Quality	• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	• **Provide the drinking water that meets national standards.** • Select aquifers for drinking water free from arsenic and other contaminants. • Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.	• Record of water-borne diseases	Regular monitoring the drinking water source during construction period	Contractor	PIU and ES
Drainage Congestion	• Waterlogging due to improper management of drainage for	• **Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem.** • Stockpile materials away from drainage lines.	• Visual inspection & consultation with BLPA	In the project area during	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
	rainwater/liquid waste or wastewater.	• Reconstruct internal road-side drains immediately if damaged by any activities.	staff, visitors and local people.	construction period		
Dust/Air Quality Management	• Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads are a nuisance in the environment and can be a health hazard.	• **During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site.** • Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). • Cover haul vehicles carrying dusty materials moving outside the construction site. • Fit machinery/vehicles with appropriate exhaust systems and emission control devices.	• Visual inspection & consultation with BLPA staff, and local people	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Noise and Vibration Management	• Noise may have an impact on workers, patients, medical centre staffs, local residents etc.	• **Appropriately site all noise generating activities to avoid noise pollution to workers, immigrants, BLPA and other officials and local residents etc.** • Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. • Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. • Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures.	• Visual inspection & consultation with BLPA staff, and local people	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Occupational Health and Safety (OHS)	• Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. • Lack of first aid and health care facilities in the immediate vicinity. • Health risk of construction workers due to COVID-19.	• **Prepare the health and safety guidance for COVID-19 at work sites and get approval from PIU, and strictly follow the guidance at worksite;** • Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. • Any worker showing symptoms of respiratory illness (fever, cold or cough) and has potentially been exposed to COVID-19 should be immediately removed from the site and tested for the virus at nearest laboratory; • Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. • Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. • Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant;	• Visual inspection & consultation with BLPA staff, and local people • Record of accidents • Obtain record of training • Provision of regular temperature check, using disinfectants and provision of time-to-time hand wash are required to limit the COVID-19 pandemic.	Contractor' site office and work site during construction	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		• Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, BLPA and other officials against construction risks. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Train all construction workers in OHS matters, and on the specific hazards of their work and maintain a register of the person present during the training. • Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, port staff, immigrants, and visitors.				
Community Health and Safety	• Construction works will impede the access of visitors and officials in limited cases. The impacts are minor negative but short-term, site-specific within a relatively small area and reversible by mitigation measures. Poor safety signage and lack of barriers at work site and trenches will create hazard to the visitors and officials.	• Provide safety signage at construction sites visible to public • Provide safety barriers near any trenches, and cover trenches with planks during non-work hours. • Contractor's activities and movement of staff will be restricted to designated construction areas. • Consult with local authority on the designated areas for stockpiling of, soils, gravel, and other construction materials. • If the contractor chooses to locate the work camp/storage area on private land, he must get prior permission from the environment specialist. • Recycling and the provision of separate waste receptacles for different types of waste shall be encouraged. • A general regard for the social and ecological well-being of the site and adjacent areas is expected of the site staff. Workers need to be made aware of the following general rules: (i) no alcohol/drugs on site; (ii) prevent excessive noise; (iii) construction staff are to make use of the facilities provided for them, as opposed to ad hoc alternatives (e.g. fires for cooking, the use of surrounding bushes as a toilet facility); (iv) no fires permitted on site except if needed for the construction works; (v) trespassing on private/commercial properties adjoining the site is forbidden; (vi) other than pre-approved security staff, no workers shall be permitted to live on the construction site; and (vii) no worker may be forced to do work that is potentially dangerous or that he/she is not trained to do. • Interested and affected parties need to be made aware of the existence of the complaints book and the methods of communication available to them. The contractor must address queries and complaints by: (i) documenting details of such communications; (ii) submitting these for inclusion in complaints register; (iii) bringing issues to the Environmental Safeguard	• Provision of complaints register • Consultation with local people	Work site during construction	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		Specialist's attention immediately; and (iv) taking remedial action as per specialist's instruction. • The contractor shall immediately take the necessary remedial action on any complaint/grievance received by him and forward the details of the grievance along with the action taken to the environmental specialist within 48 hours of receipt of such complaint/grievance.				
Site Reinstatement	• Damage due to debris, spoils, excess construction materials.	• Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required. • All disrupted utilities restored • All affected structures rehabilitated/ compensated • The construction camp is to be checked for spills of substances such as used container/water bottles, paint, etc. and these shall be cleaned up. • All hardened surfaces within the construction camp area shall be ripped, all imported materials removed, and the area shall be top soiled and regressed using the guidelines set out in the re-vegetation specification that forms part of this document. • The contractor must arrange the cancellation of all temporary services. • Request PMU/PIU to report in writing that worksites and camps have been vacated and restored to pre-project conditions before acceptance of work. • No payment should be made if the site is not cleared.	• Visual inspection & consultation with local people	At the end of construction period	Contractor	PIU and ES
OPERATION PHASE						
COVID Waste Management	• COVID waste has posed serious health hazards and can spread the contagion among medical centre staff, waste handlers and the community.	• **Prepare medical waste management plan that will cover the waste generated from the response to the COVID-19 infection. The plan will follow ADB's guidance note on managing medical waste during COVID-19 pandemic as well as any other government regulations.** • All medical waste produced during the care of COVID-19 patients must be considered as infectious waste and should be segregated and collected safely in designated colored coded containers. • Use of colored bins (like yellow) and to put Covid wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. • Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with WHO COVID-19 Guidelines. • Train the staffs on color coding and handling of infectious Covid wastes.	• Visual inspection and consultation with medical centre staff and cleaners. • Record of waste type and quantity and the disposal method.	Medical Centre premises	Civil Surgeon/UHFPO	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
Medical Waste Management	• Poor management of medical waste exposes healthcare workers, waste handlers and the community to infections, toxic effects, and injuries. • Soil, water, and air pollution from the improper management of wastes generated from the facility.	• **Provision of color coded, covered receptacles in strategic positions of the facility for separate categories of waste and regular cleaning of waste bins. Labels showing the type of waste that should be disposed of in each container should be placed near to the bins to guide staff and reinforce good habits.** • Medical wastes generated in the medical centre will be treated by in-house facility and then these treated wastes will be disposed of as per a pre-determined SOP in accordance with international good practices. Transport the medical waste in a biohazard bag with covered vehicle. The records of waste disposal will be maintained as proof for proper management as designed. • Ensure necessary PPE (gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required and ensure them to wear PPE when handling and disposing waste according to national and WHO guideline. • Do not burn the wastes openly or throw in to water bodies or do not dispose on soil. • Audit for any off-site waste disposal will be required on a monthly basis and institute any remedial measures required to ensure compliance.	• Visual inspection and consultation with medical centre staff and cleaners. • Record of waste type and quantity and the disposal method.	Medical Centre premises	Civil Surgeon/UHFPO	DGHS
Hazards due to Substation & Generator	• Noise and vibration may have an impact on medical centre staff, doctors, patients and their relatives. • Accidental spillage of oil and toxic coolants that would contaminate land and water. • Risk of fire and electrocution hazards from substation.	• **Develop an Emergency Response Plan and follow strictly during emergency incident.** • Have provision to use canopy to absorb 0.7 dB to 0.8dB of noise. • Periodic maintenance of equipment such as transformers and capacitors to minimize noise generation. • Provision of oil-water separator and oil containment structure. • Substation room will be entry restricted and security staff assigned to prevent unauthorized public access. Place warning signs at substation and generator room. • Ensure firefighting arrangement such as fire extinguishers, fire alarms etc. in the substation site. • Use of PPE, proper training, awareness, keeping safe distance from hazardous points, maintaining safety of high switchyard and cable gallery.	• Regular inspection and testing of all safety features and hazard control measures and personal protective features.	Substation room during operation period	Civil Surgeon/UHFPO	DGHS
Occupational Health and Safety including COVID H&S	• Needle-sticks, surgical cuts, and other injuries posing transmission risk of blood-borne diseases such as COVID-19,	• **Prepare a health and safety guidance for COVID-19 and strictly follow the guidance at the facility.** • Refer to IFC EHS Guidelines for Healthcare Facilities (2007) and relevant national guidelines and protocols. • Implement suitable safety standards for all workers and facility visitors.	• Regular inspection and testing of all safety features and hazard control measures and personal protective features	Medical Centre premises	Civil Surgeon/UHFPO	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
	Hepatitis C, HIV-AIDS, etc. • Dermatitis and allergic reactions due to workplace exposures.	• Mandatory use of personal protective equipment and safety gears, where required. • Arrangements for safe drinking water and sanitation facilities. • Provide regular OHS training to healthcare workers. • Provide incentives to staff and create a work-life balance in work schedule.				
Accidental Releases of Gas and Fluids	• Leakage of infectious or hazardous substances may pose serious health hazards and can spread the contagion among medical centre staff and patients, cleaners etc.	• **Develop an Emergency Response Plan and follow strictly during emergency incident.** • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Wear disposable gloves and, if aerosols are formed, glasses and a respirator for particles. • Cover the contaminated area with a disinfectant in a concentric way, starting at the edge and progressing towards the center of the contamination. • Avoid spraying or pouring the disinfectant from above, which can cause aerosols. • Mop up and dispose of all waste and contaminated material in the appropriate container (infectious waste). • Conduct monthly safety audit of facility to identify fire risks, electrocution hazards and other unsafe conditions, and assess adequacy of fire extinguishers and first aid provisions.	• Record of regular inspection.	Medical Centre premises	Civil Surgeon/UHFPO	DGHS

Annex V: Tentative List of Participants for Training on ADB Safeguard

Sl. No.	Name	Designation	Email	Telephone
	PIU Officials			
1	Prof. (Dr.) Md. Nazmul Islam	Project Director	pdcreap@ld.dghs.gov.bd	01711269170
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3	Dr. Md. Abul Fattah Sadee	Medical Officer	dr.sadee.creap@gmail.com	01937768274
	Consultants			
1	Zafar Iqbal	Project Management Coordinator/Team Leader	zafiqba@gmail.com	01711594179
2	Abu Sayed Mojumder	Procurement Specialist	sayed_mojumder@yahoo.com	01819510493
3	Muhammad Abul Kawser	Procurement Specialist	kawsersumon95@yahoo.com	01712816739
4	Mohammad Kamruzzaman	Civil Engineer	mk56527@gmail.com	01725116850
	PWD Officials			
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1	Ajmul Haq	Executive Engineer	ee_dmc@pwd.gov.bd	01711231466
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	PWD E/M Division-4, Dhaka			
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	Rajshahi PWD Division, Rajshahi			
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	Cumilla PWD Division, Cumilla			
9	Md. Abdus Sattar	Executive Engineer	ee_comil@pwd.gov.bd	01712180509
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	Khulna PWD Division-1, Khulna			
11	Amit Kumar Bishwas	Executive Engineer	ee_khul1@pwd.gov.bd	01712603301
12	Md. Awledul Islam Khan	Sub-Divisional Engineer(E/M)	sde_em_khul1@pwd.gov.bd	01920651011
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13	Rahul Guho	Executive Engineer	ee_ctg1@pwd.gov.bd	01722865068
	PWD E/M Division-1, Chattogram			
14	S. M. Moynul Haque	Executive Engineer	ee_emctg1@pwd.gov.bd	01911310679
	Mohakhali PWD Division, Dhaka			
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	Sylhet PWD Division, Sylhet			
16	Ripon Kumer Roy	Executive Engineer	ee_syl@pwd.gov.bd	01926138056
17	Khaled Saifullah	Sub-Divisional Engineer	sde3_syl@pwd.gov.bd	01882115451
	Jashore PWD Division, Jashore			
18	Md. Ariful Islam	Executive Engineer	ee_jessr@pwd.gov.bd	01816820488

Sl. No.	Name	Designation	Email	Telephone
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19	Md. Mijanur Rahaman	Executive Engineer	ee_lmnht@pwd.gov.bd	01726-316541
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20	Md. Shakiul Alam	Executive Engineer	ee_bbari@pwd.gov.bd	01925-607980
	Satkhira PWD Division, Satkhira			
21	Abu Hyat Mohammad Shakiul Azam	Executive Engineer	ee_satkh@pwd.gov.bd	01712880844
	Dinajpur PWD Division, Dinajpur			
22	Md. Qutub Al Hossain	Executive Engineer	ee_dinaj@pwd.gov.bd	01712488003
	Panchagarh PWD Division, Panchagarh			
23	Md. Moniruzaman	Executive Engineer	ee_panch@pwd.gov.bd	01737342894
	Population Project Cell (PPC)			
24	Fatema Binte Mamun	Sub-Divisional Engineer	ee_ppc@pwd.gov.bd	01723434617
25	Asma Nafida Kazme	Sub-Divisional Engineer	ee_ppc@pwd.gov.bd	01746402705
26	Shah Alam	Assistant Engineer	ee_ppc@pwd.gov.bd	01739543955

Annex VI: Photographs of Site Visits



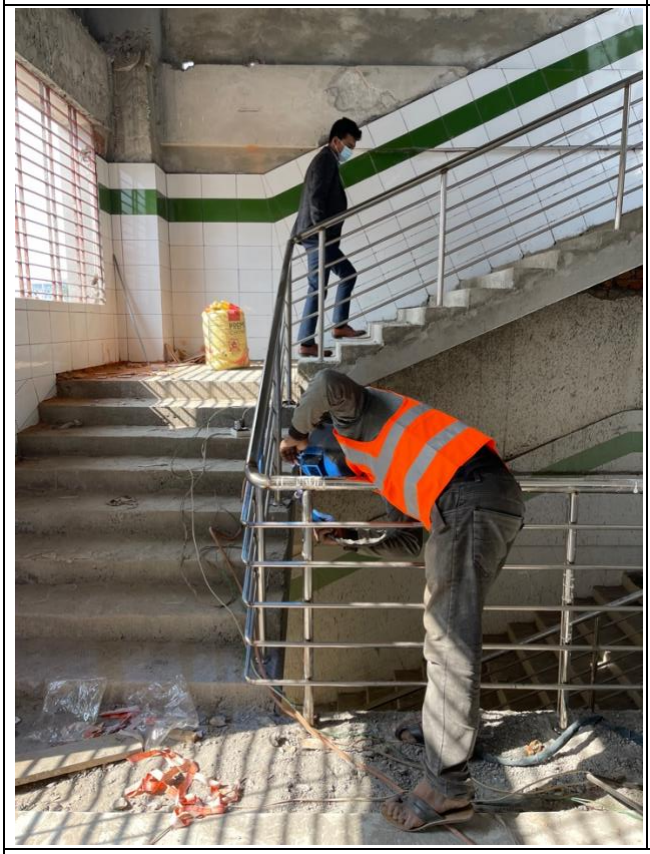

Dhaka Medical Collage Hospital




Faridpur Medical College Hospital, Faridpur

Mymensingh Medical College Hospital, Mymensingh






Rajshahi Medical College Hospital, Rajshahi

Annex VII: Environmental Compliance Monitoring Checklist

ENVIRONMENTAL COMPLIANCE MONITORING CHECKLIST

COVID-19 Response Emergency Assistance Project

Name of the Site Location: Rajshahi Medical College Hospital (RMCH)

Date: 28 December 2022

Environmental Compliance Monitoring Checklist

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
A.	**General**				
1.	Legal working hours	✓			Contractor is following legal working hours
2.	Employment Recordkeeping arrangement	✓			Available
3.	Payment Record keeping arrangement	✓			Maintaining
4.	Environment, Health, and Safety Officer designated	✓			Appointed by the Contractor
5.	Provision for the monthly meeting for the inspection of site activities		✓		Not regular
B.	**Health and Sanitation**				
Public Health					
1.	Emergency medical facilities & first aid box at field office and work sites	✓			Available
2.	Waste disposal arrangement at camp and work sites	✓			n
3.	Safe water supply arrangements	✓			Contractor is providing Safe drinking water
Occupational Health					
1.	First-Aid Box availability at worksites	✓			Available
2.	Provision of personal protection equipment's (PPEs)	✓			Adequate number of PPEs
3.	Handling of cement and other hazardous materials by workers	✓			Using handgloves
4.	Fire extinguishers/fighting facilities maintenance and validation	✓			Available

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SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
5.	Workers' complaints have been taken care of by the supervisor	✓			Workers are stisfied
6.	Children below 15 employments	✓			No child labor was found
C.	**Environmental Pollution**				
Dust and emission control					
1.	Construction vehicles and machinery are maintained properly to reduce emissions	✓			Not have many machineries
2.	Proper storage of materials and regular watering and maintaining log books	✓			Following regularly.
3.	Availability of equipment for watering in case of dust generation	✓			Using pipe for watering
Noise Pollution					
1.	Movement of vehicles at desired hours	✓			Strictly maintained by RMCH
2.	Noise control measures at sites	✓			
Water Pollution					
1.	Wastes, cement, effluents, and junks not disposed of in the water	✓			Not disposed of in water
Flora and Fauna					
1.	Trees and bushes outside the construction area preserved from damages	✓			Yet not hampered
Waste Management					
1.	Construction wastes are removed off-site regularly	✓			Clearing regularly
2.	Chemical wastes, if any, collected and disposed of properly	✓			Following proper guidance
D.	**Environmental documents at Field Office and Project sites**				
1.	Field Office possesses copies of EMP, the contract document, and Technical Specifications	✓			PWD Office is located at the same area
2.	Heavy equipment maintenance records		✓		
E.	**Other relevant concern if any at Project sites**				

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SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
1.					
2.					

*FC- Full Compliance; PC- Partially Compliance; NC-Non-Compliance

Consultant's Representative Name:	Contractor's Representative Name:
Raisin Akhter Feroz	
Position: Environmental Safeguards Specialist	Position:
Signature:	Signature:

PE-3